



APPENDIX E

LANDSCAPE INTENT PLAN

HOMESTEAD DRIVE

PROPOSED WAREHOUSE

WAREHOUSE DEVELOPMENT

Landscape Intent Package

FPI Queensland Pty Ltd

LOT 501 ON SP295994

Lot 205 Vantage Estate
HOMESTEAD DRIVE
STAPYLTON, QUEENSLAND 4207

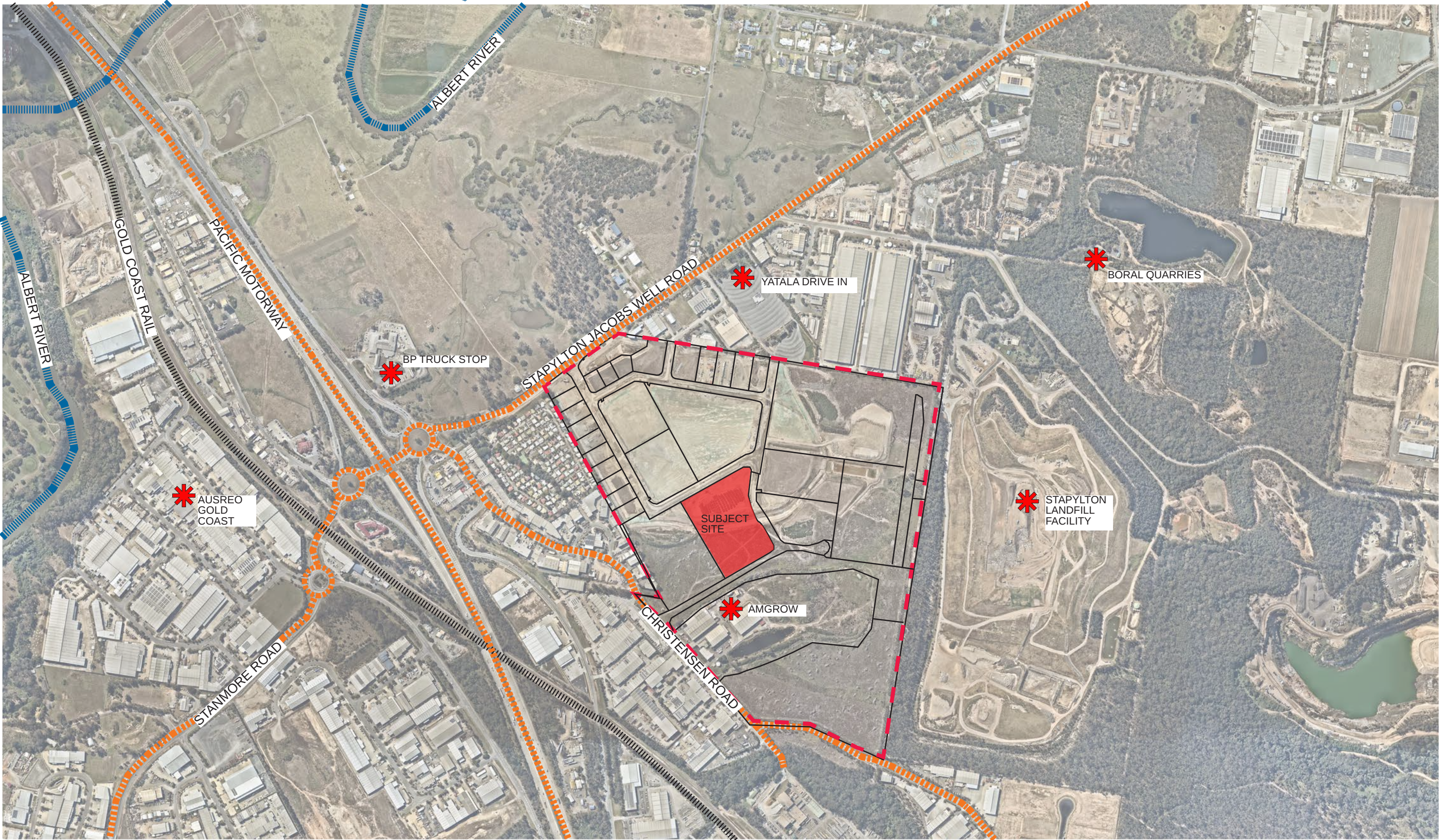
NOVEMBER 2021
Issue - For Approval
Revision - D

Prepared By -
Gassman Development Perspectives
Job No. 6097

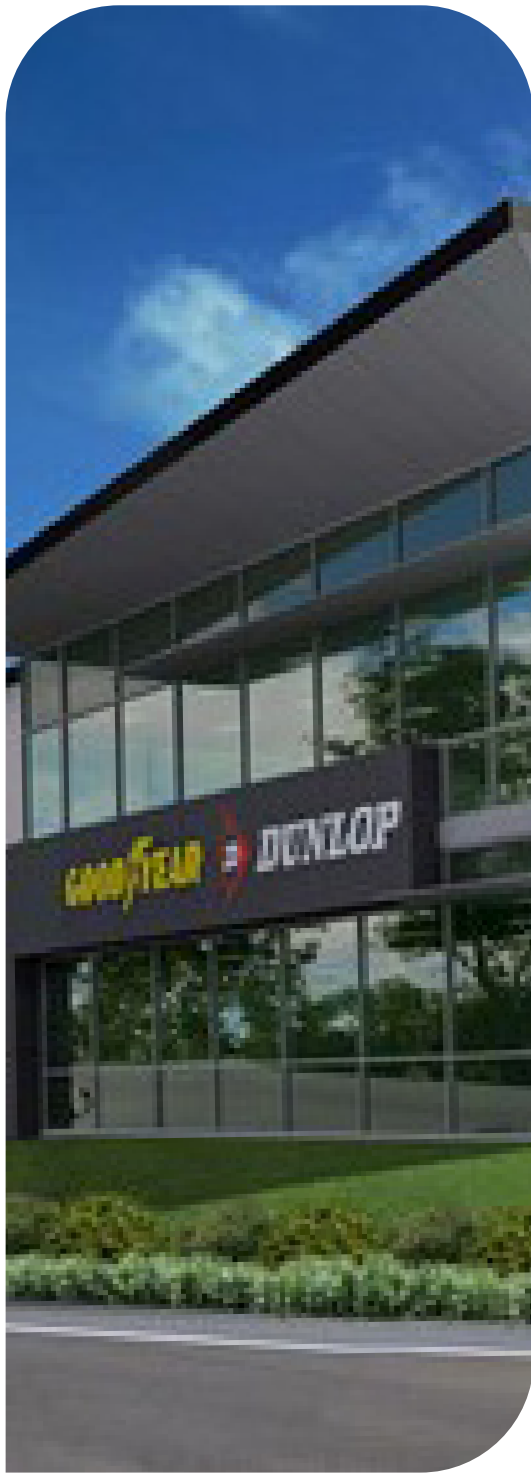
CONTENTS

- 01 SITE LOCALITY PLAN
- 02 LANDSCAPE INTENT
- 03 LANDSCAPE INTENT PLAN
- 04 ELEVATION DRAWINGS
- 05 ELEVATION DRAWINGS
- 06 DETAIL DRAWINGS
- 07 MATERIAL PALETTE
- 08 PLANTING PALETTE
- 09 PLANTING PALETTE

SITE LOCALITY PLAN



Map Source: Near Map



The landscape intent for the proposed site is to

To facilitate the development of functional, well serviced, amenable, and attractive warehouse for Goodyear.

To create a sense of spaciousness defined by wide roads and buildings, and a flow of landscape between.

To promote a development that integrates with the surrounding environment through the use of compatible landscaping, materials, colours and building forms.

To reduce the potential for conflict between vehicle and pedestrian traffic there will be an appropriate level of separation and/or wayfinding throughout the site.

To ensure soft-scaping softens the built form, yet is durable and requires minimal maintenance.

LANDSCAPE INTENT PLAN

LEGEND

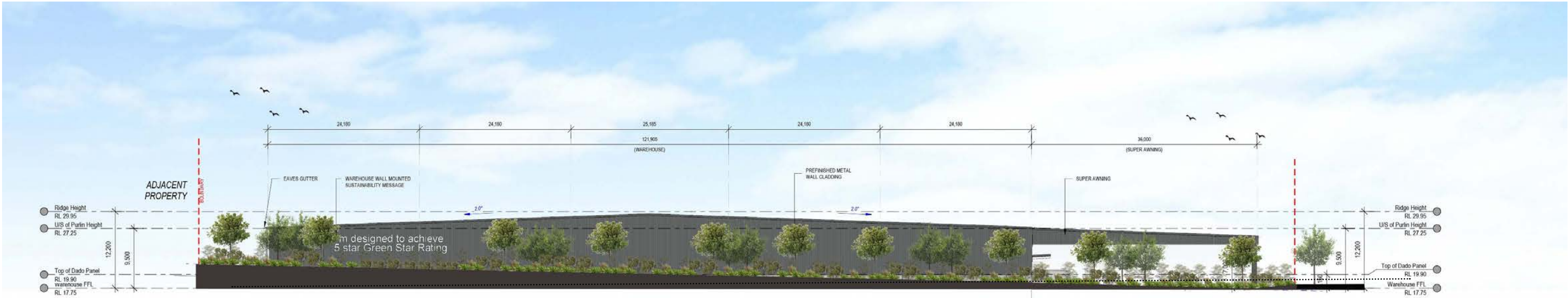
- PROPERTY boundary
- - - RETAINING wall (TBC)
- 01 TURF to road verge to be retained.
- 02 STREET trees to be retained
- 03 LAYERED planting of tree, shrub and groundcover species, consisting of low maintenance species
- 04 FEATURE trees to create a sense of place, provide shade for pedestrians and enhance legibility
- 05 SHADE trees provided to carparking area
- 06 GROUNDCOVER planting to carparking bays to enhance CEPTED principals
- 07 BIKERACKS
- 08 OUTDOOR recreation area including seating and feature planting
- 09 FEATURE planter to front entrys as focal point.
- 10 OFFICE location shown indicatively only
- 11 FIRE TRUCK path
- 12 SIGHTLINES low groundcover planting proposed in these zones



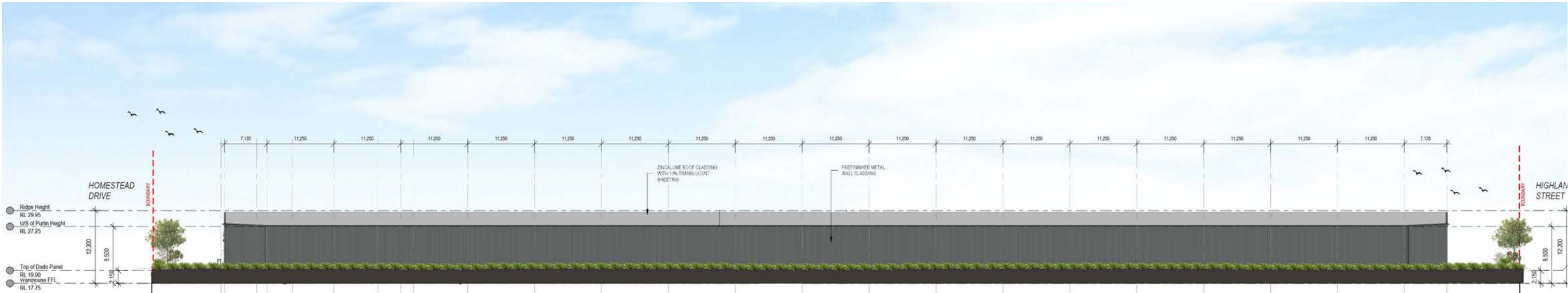
LANDSCAPE INTENT



ELEVATION DRAWINGS

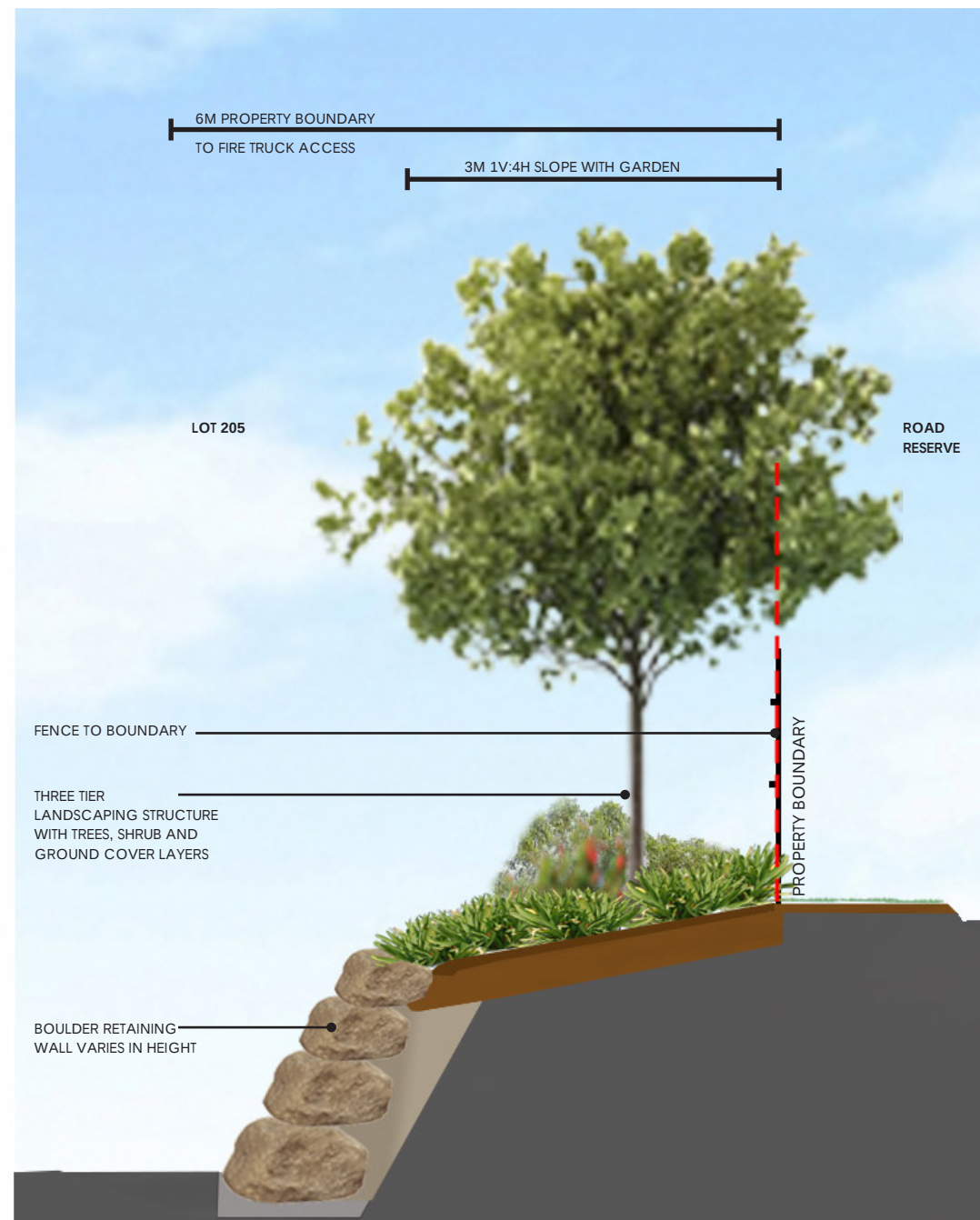


ELEVATION DRAWING CC - SOUTH ELEVATION (HIGHLAND STREET)



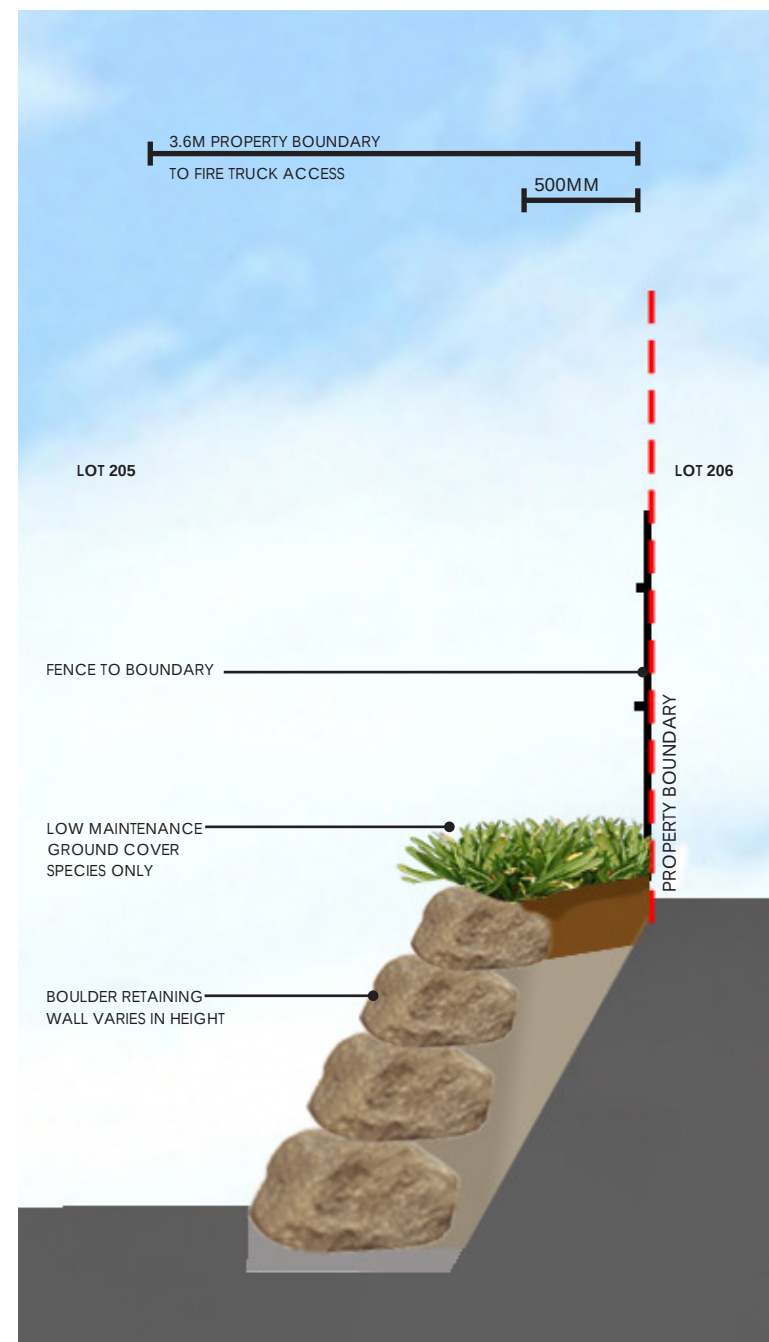
ELEVATION DRAWING DD - WEST ELEVATION (REAR OF LOT)

SECTION / DETAIL DRAWINGS



TYPICAL SECTION OF RETAINING WALLS WITH 3M BATTER PLANTING ZONE

REFER TO ENGINEERING DETAILS FOR FURTHER INFORMATION



TYPICAL SECTION DETAIL OF RETAINING WALL TO REAR OF LOT

REFER TO ENGINEERING DETAILS FOR FURTHER INFORMATION

MATERIALS PALETTE

HARDSCAPE MATERIALS



Plain grey broom finished
concrete path network



Palisade Fencing



Retaining Wall (sandstone
boulder or similar)

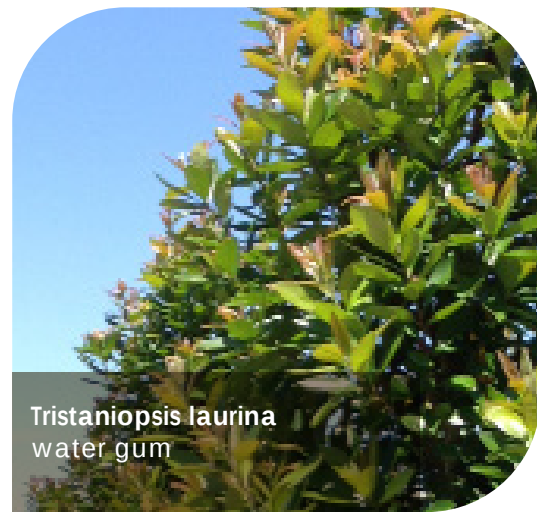


Entry singage example



PLANTING PALETTE

STREET TREE SPECIES



Tristaniopsis laurina
water gum



Waterhousia floribunda
weeping lilly pilly



Cupaniopsis anacardioides
tuckeroo



Buckinghamia celssisima
ivory curl flower



Xanthostemon chrysanthus
golden penda

TREE SPECIES



Lophostemon suaveolens
swamp Box



Elaeocarpus eumundii
quondong



Stenocarpus sinuatus
firewheel tree



Acacia concurrens
black wattle



Elaeocarpus reticulatus
blueberry ash

PLANTING PALETTE

SHRUB SPECIES



GROUNDCOVER SPECIES





APPENDIX F

TRAFFIC IMPACT ASSESSMENT



TRANSPORT IMPACT ASSESSMENT
PROPOSED WAREHOUSE DEVELOPMENT
LOT 205 VANTAGE INDUSTRIAL ESTATE, YATALA

Prepared for



18 NOVEMBER 2021

DOCUMENT REGISTER

Document Lot 205 Vantage Yatala

RTE Reference 21438

Prepared by Luke Rytenskild, Dare Janzekovic

Document History

Version	Version date	Details	Reviewed and Authorised	
			Name / Position	Signature
1	18 November 2021	DA ISSUE	Luke Rytenskild Director RPEQ 6293	

COPYRIGHT NOTICE

© Copyright CRG Traffic Pty Ltd All Rights Reserved. Copyright in the whole and every part of this document belongs to CRG Traffic Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or in or on any media to any person without the prior written consent of CRG Traffic Pty Ltd.

COMPANY INFORMATION

CRG Traffic Pty Ltd as trustee for the Rytenskild CRG Trust trading as Rytenskild Traffic Group
ABN 24 401 134 418
ACN 151 846 847
Director: Luke Rytenskild RPEQ 6293

GOLD COAST
Unit 2,
24 Surfers Avenue
Mermaid Beach QLD 4218

BRISBANE
Level 5
320 Adelaide Street
Brisbane QLD 4000

SYDNEY
Level 26
44 Market Street
Sydney NSW 2000

Phone: 1300 220020
Facsimile: 1300 087177
Email: info@rytenskildtraffic.com
Web: www.rytenskildtraffic.com

TABLE OF CONTENTS

1.0	INTRODUCTION.....	4
2.0	SUBJECT SITE.....	4
2.1	Location of Subject Site.....	4
3.0	DEVELOPMENT PROPOSAL	5
4.0	CAR PARKING.....	7
4.1	Car Parking Supply.....	7
4.2	Car Parking Design.....	8
5.0	ACCESS ARRANGEMENTS.....	8
6.0	PROVISION FOR SERVICE VEHICLES	14
7.0	SUMMARY OF CONCLUSIONS & RECOMMENDATIONS	20
	APPENDICES.....	21
	APPENDIX A – TRANSPORT CODE RESPONSE.....	22
	APPENDIX B –RESPONSE TO DRIVEWAYS AND VEHICULAR CROSSINGS CODE	41

1.0 INTRODUCTION

Rytenskild Traffic Engineering (RTE) has been engaged by Frasers Property to prepare a Transport Impact Assessment of its proposed warehouse development at Yatala.

This report forms part of a Development Application to be lodged with the City of Gold Coast. The following issues have been addressed during the study:

- Site access arrangements;
- Car parking supply and design;
- Provision for pedestrians and cyclists;
- Provision for heavy vehicles.

Responses to the Gold Coast Transport Code and Driveways and Vehicular Crossings Code are provided as Attachments A and B.

2.0 SUBJECT SITE

2.1 Location of Subject Site

As shown in Figure 2.1, the subject site is located on the eastern side of Homestead Drive. The site is identified as Lot 501 on SP295994 and has a site area of 42,350m². The site is located within the low and medium impact industry zone.

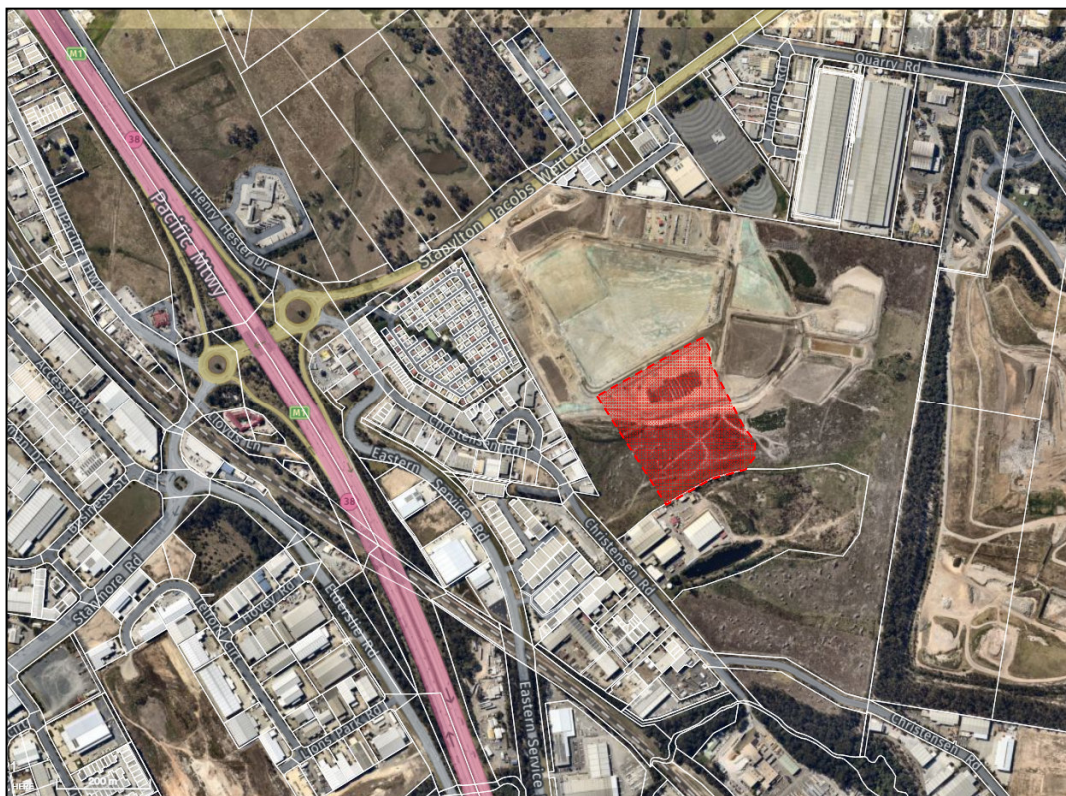


FIGURE 2.1 – LOCATION OF SUBJECT SITE

3.0 DEVELOPMENT PROPOSAL

The proposed plan of development comprises of a warehouse building with associated office facilities, with the following floor areas:

DEVELOPMENT TABLE	
SITE AREA	42,350 sqm
EFFICIENCY	60.2 %
WAREHOUSE	25,000 sqm
<i>(Includes: 50sqm Warehouse Office & WH Amenities)</i>	
OFFICE (1-STOREY)	520 sqm
TOTAL BUILDING AREA	25,520 sqm
CAR PARKING PROVIDED	63 Spaces
SUPERAWNING (36M)	3,660 sqm
AWNING (3M)	103 sqm
HEAVY DUTY PAVEMENT (H)	6,305 sqm
LIGHT DUTY PAVEMENT (L)	1,706 sqm

The proposed warehouse has been purpose designed for Goodyear Tyres. The warehouse will be used to unload, store and distribute tyres nationally.

It is planned that up to 63 staff will be on the premises at any one time.

A total of 63 car parking spaces are proposed to be provided.

Access is proposed to be gained via three separate vehicle crossovers, with two (for heavy vehicles) along the northern frontage and one (for car park access) at the northern end of the western road frontage.

The proposed site plan is shown in Figure 3.1.

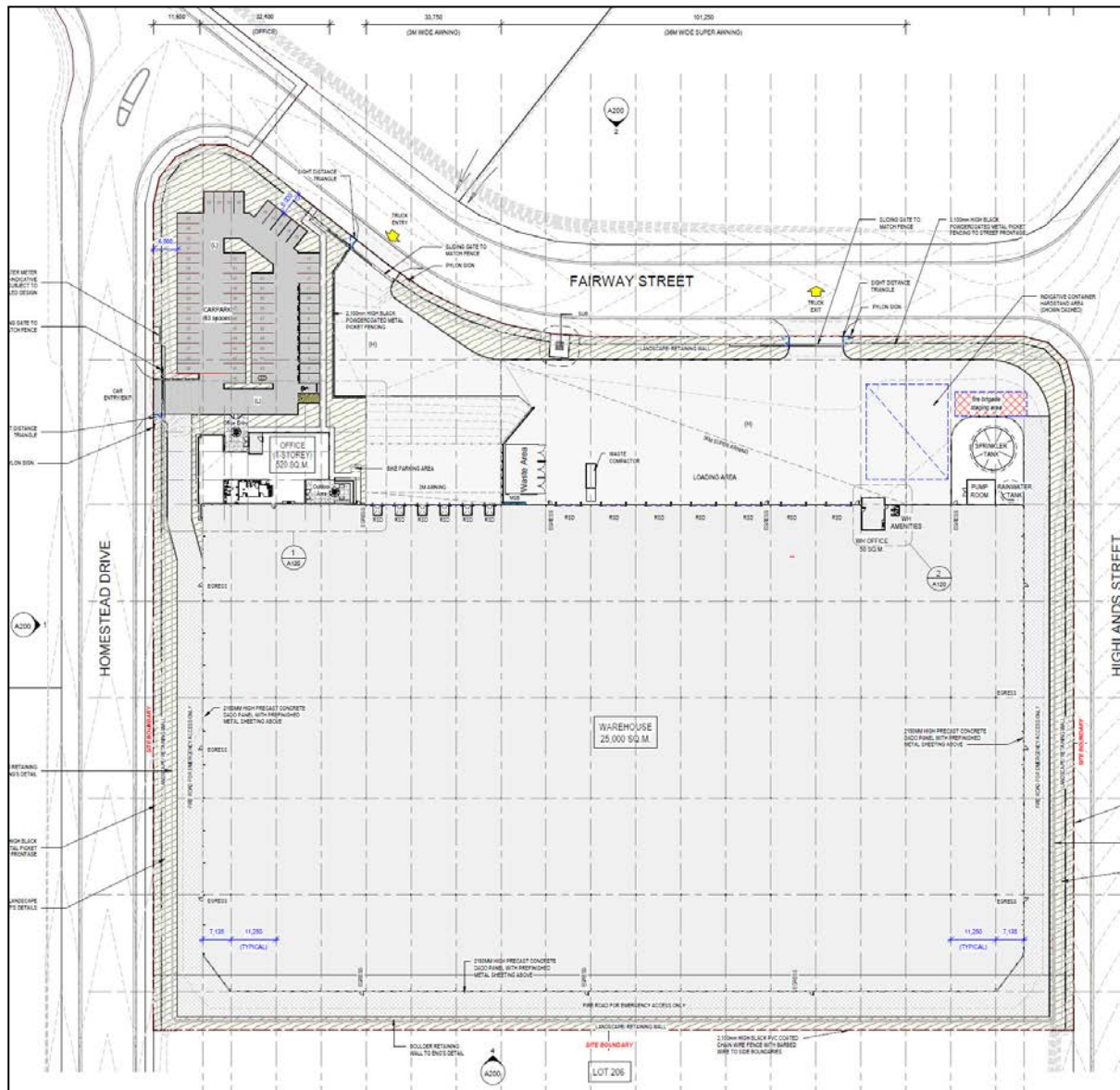


FIGURE 3.1 – PROPOSED SITE PLAN

4.0 CAR PARKING

4.1 Car Parking Supply

In accordance with the *Table 9.4. 13-3* of the Transport Code, the following rate applies to the proposed use:

Warehouse:

2 spaces per tenancy or lot plus

1 space per 50m² of TUA up to and including 500m², and

1 space per 100m² of TUA over 500m²

Based on the above, the Acceptable Outcome for car parking for the proposed development is 258 spaces.

The proposed supply of 63 parking spaces will comfortably cater for the planned workforce and small number of visitors that will access the site.

4.2 Car Parking Design

The geometric layout of the proposed parking facilities has generally been designed to comply with the relevant requirements specified in the Transport Code and AS2890.1: 2004.

The proposed car parking layout has the following dimensions:

Table 4.2 – Car Parking Design Characteristics

Design Aspect	Minimum AS2890.1 Standard	Proposed Provision	Compliance
Parking space length: - General - PWD Bay	5.4 metres 5.4 metres	5.4 metres 5.4 metres	Compliant Compliant
Parking space width: - Staff - PWD Bay	2.4 metres 2.4 metres	2.4 metres 2.5 metres	Compliant Compliant
Aisle Width: - Parking aisle - Circulation aisle	5.8 metres 5.8 metres	6.2 metres 6.2 metres	Compliant Compliant
Maximum Gradient - Parking Bay - Parking Aisle - PWD Bay	1:20 (5.0%) 1:16 (6.25%) 1:40 (2.5%)	<1:20 (5.0%) <1:20 (5.0%) <1:40 (2.5%)	Compliant
Maximum Change in Grade	1:8 (12.5%) summit 1:6.67 (15.0%) sag	<1:8 (12.5%) summit <1:8 (12.5%) sag	Compliant
Height Clearance - General Min. - Absolute Min.	2.2 metres N/A	N/A	Compliant
Parking Aisle Extension	1 metre beyond last bay	2.5 metre beyond last bay	Compliant

The proposed dimensions of the car parking area are shown as Figure 4.1. Swept paths of typical car parking spaces are shown in Figure 4.2.

5.0 ACCESS ARRANGEMENTS

It is proposed that separate access points will be provided for heavy and light vehicles. As shown in Figures 5.1 – 5.3, the proposed access crossover splays have been designed in accordance with the IPWEA Standard Drawing RS-051. The proposed access crossover will have been designed to be suitable for heavy vehicle movements.

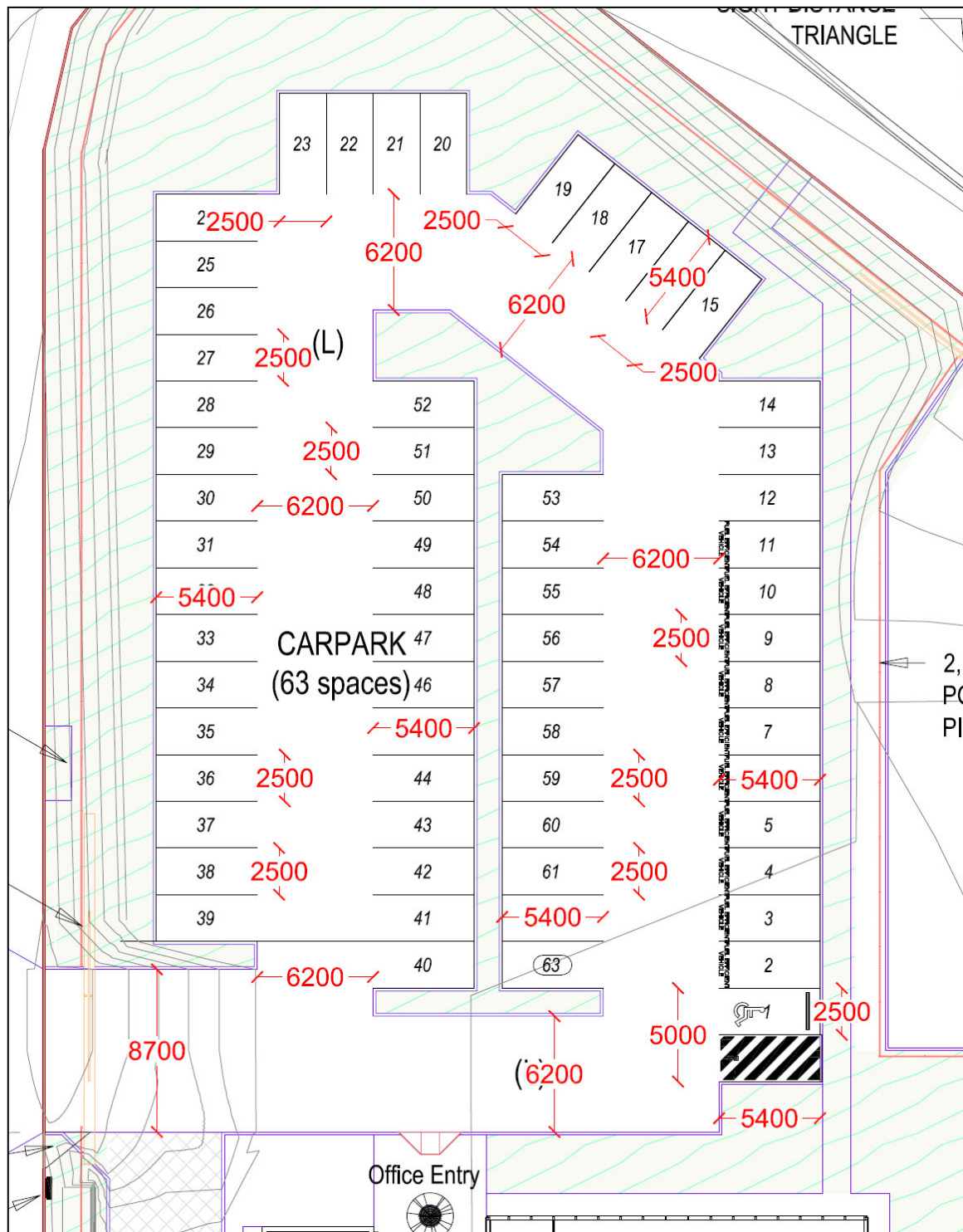


FIGURE 4.1 – DIMENSIONED CAR PARKING LAYOUT

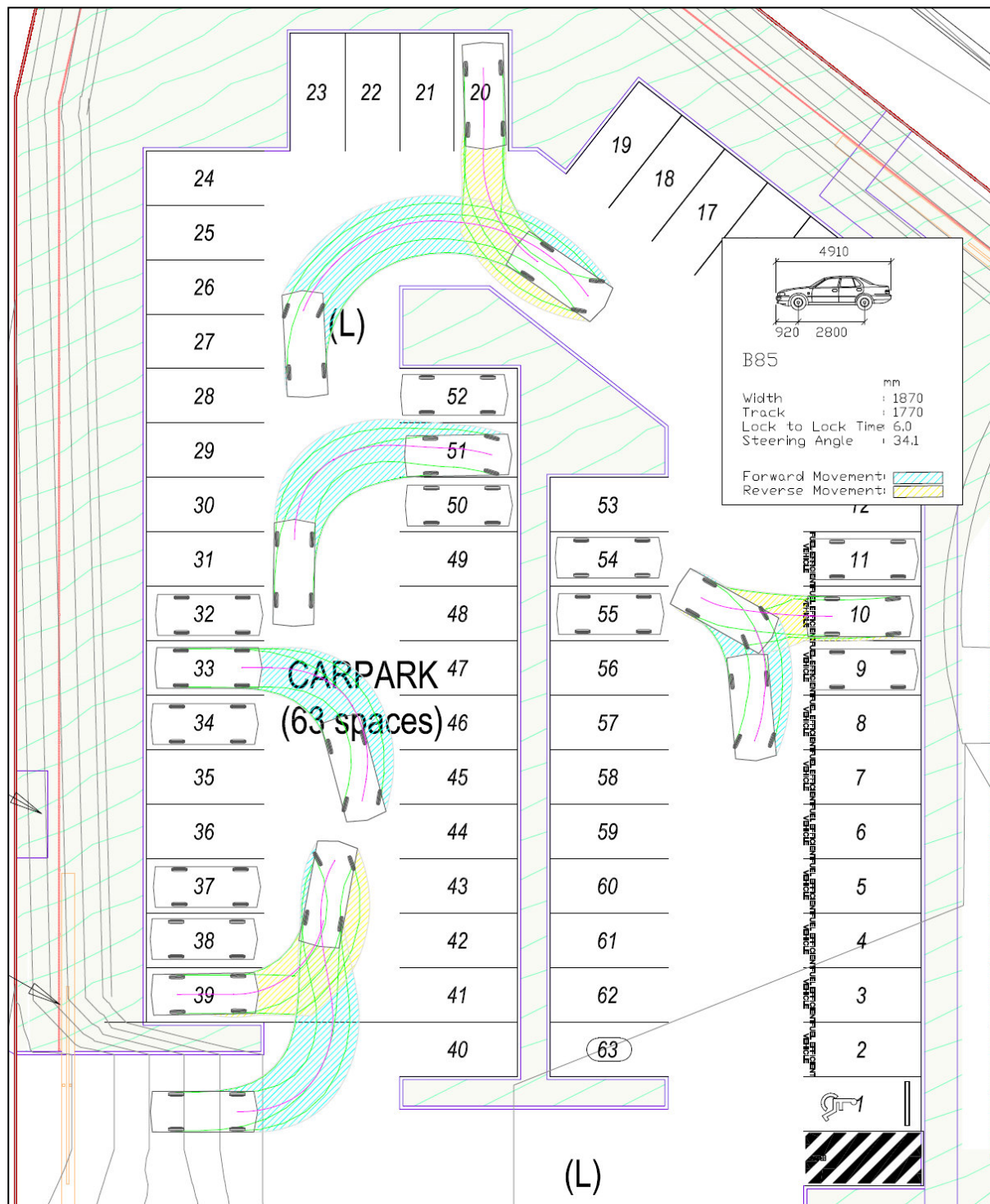
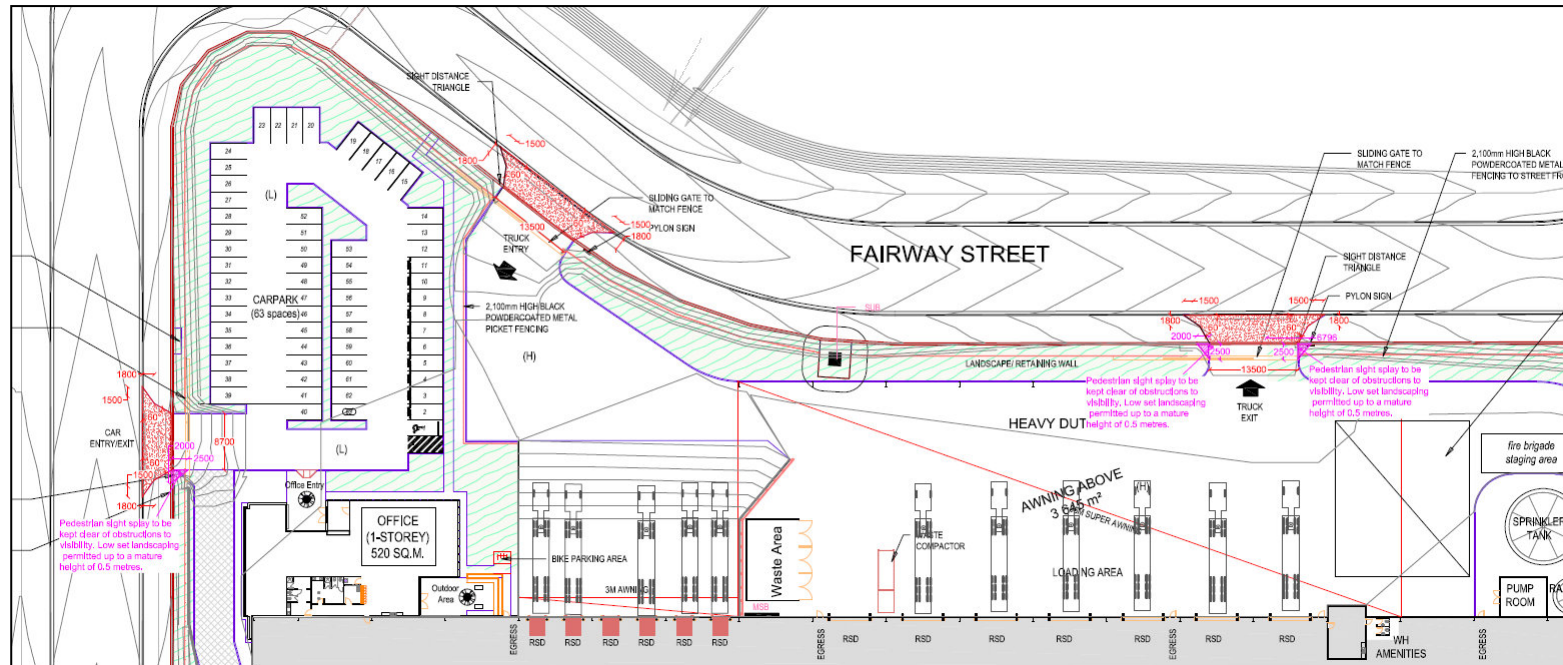


FIGURE 4.2 – SWEEP PATH OF 85TH PERCENTILE VEHICLES (CAR PARKING)



**FIGURE 5.1 – PROPOSED ACCESS CROSSOVER ARRANGEMENTS
 (OVERALL)**

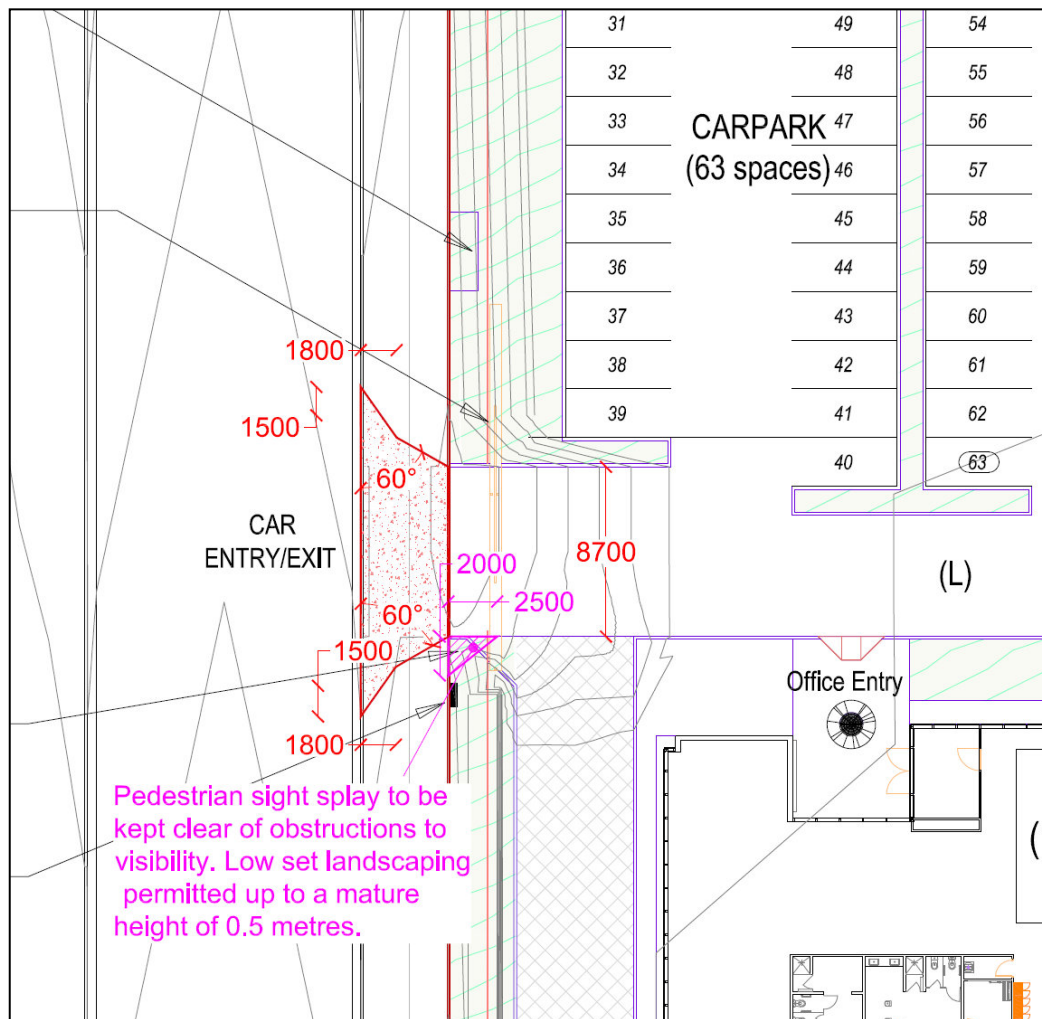


FIGURE 5.2 – LIGHT VEHICLE CROSSOVER ARRANGEMENTS (NORTHERN CROSSOVER)

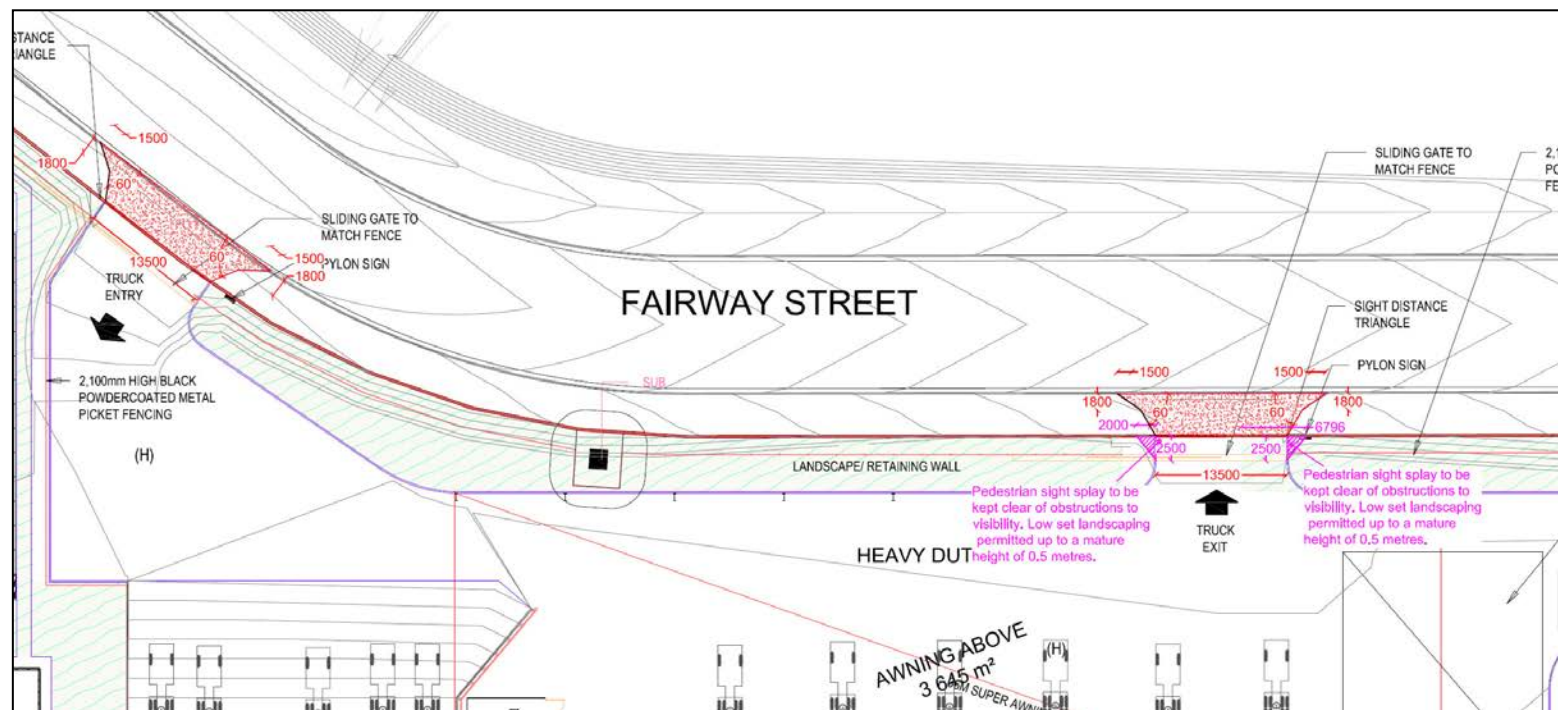


FIGURE 5.3 – HEAVY VEHICLE CROSSOVER ARRANGEMENTS (EASTERN CROSSOVERS)

6.0 PROVISION FOR SERVICE VEHICLES

The proposed plan of development has been designed to allow vehicles up to a 20 metre long Articulated Vehicle (AV) to satisfactorily access and circulate through the site whilst maintaining 0.5 metres to obstructions at all times.

The swept path for an Articulated Vehicle negotiating the site are shown in Figures 6.1 – 6.2.

As shown in Figures 6.3 and 6.5, the proposal makes adequate provision for access by emergency vehicle and waste collection vehicles.



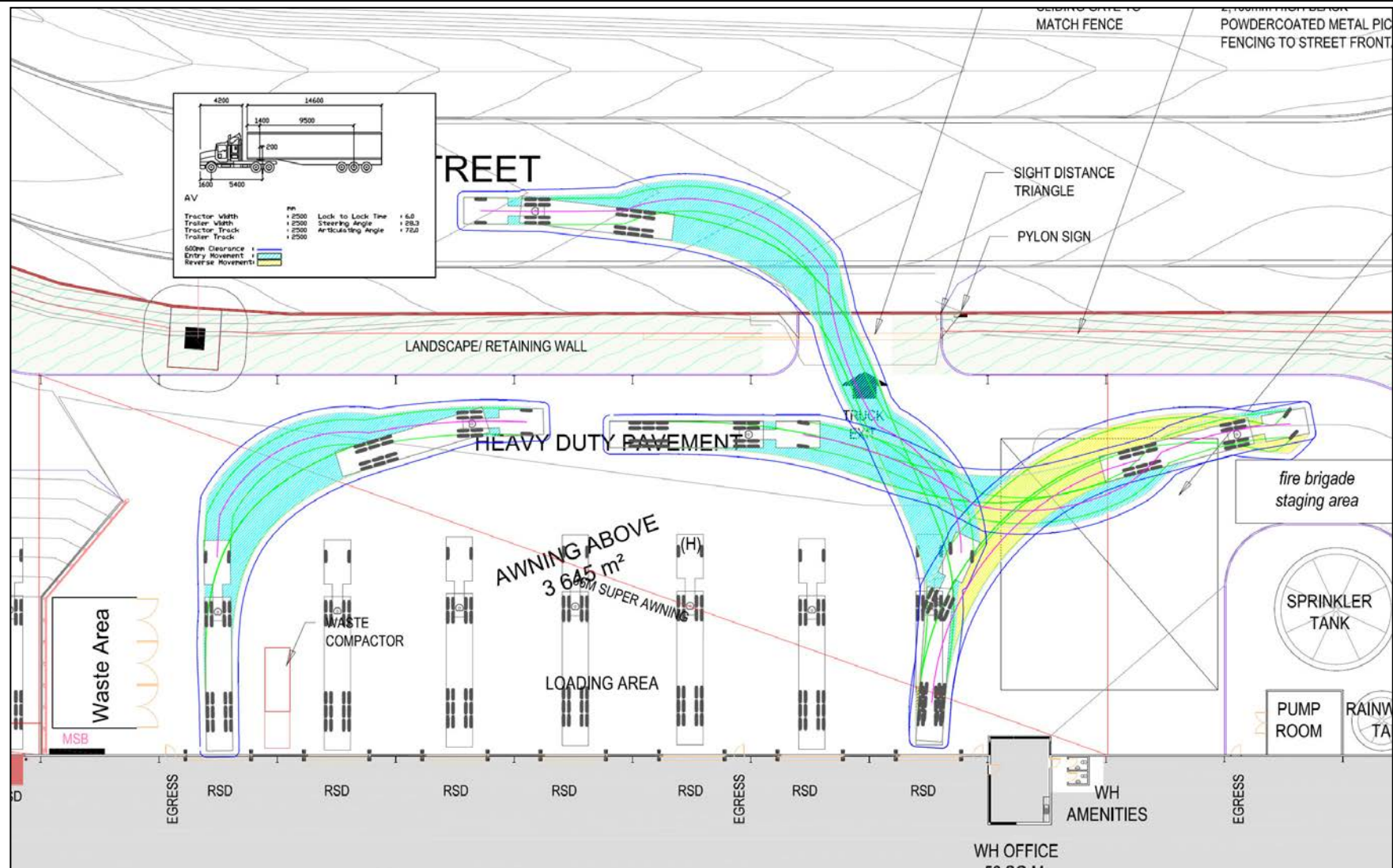
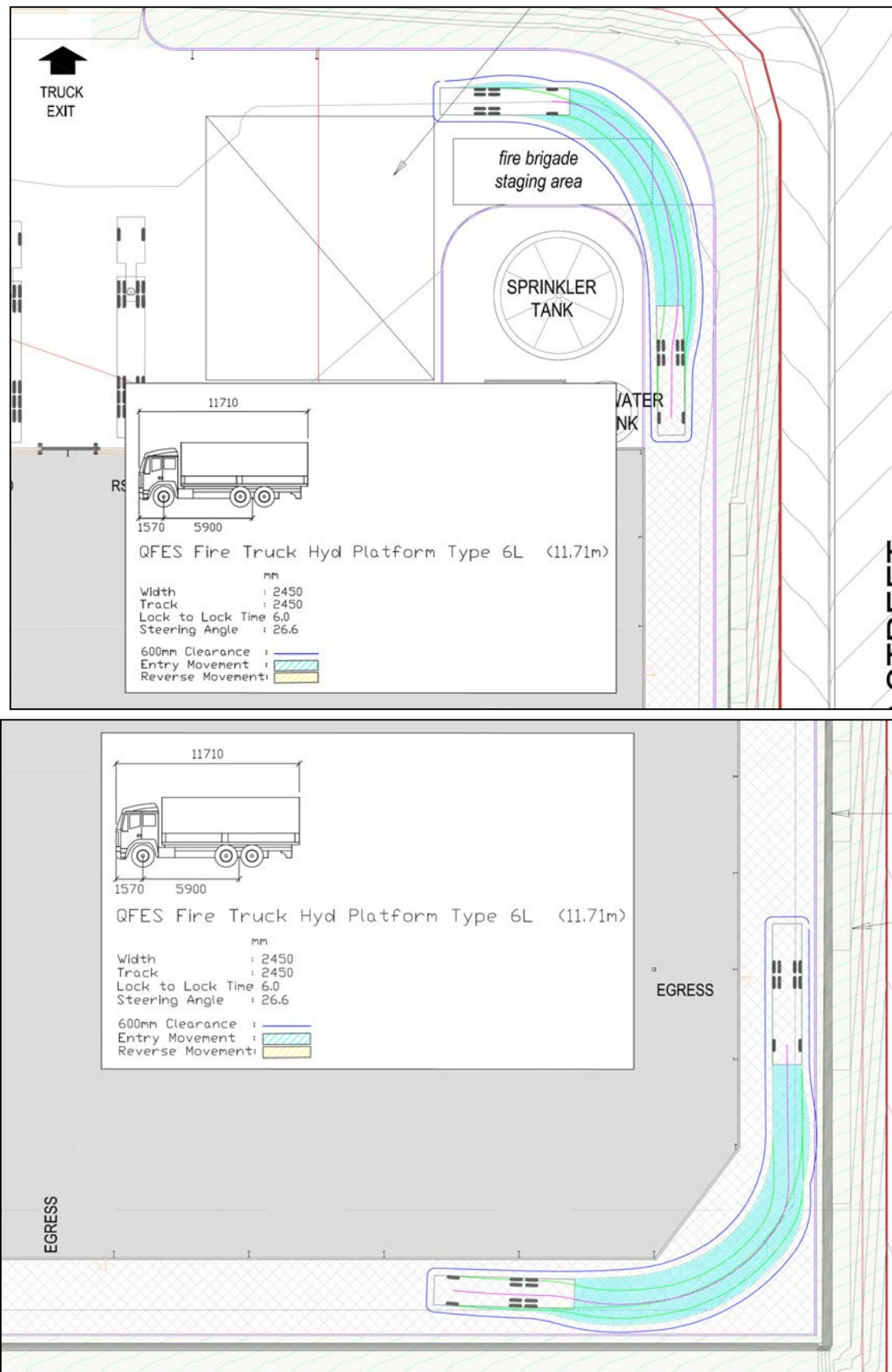


FIGURE 6.2 – ON-SITE SERVICE VEHICLE MANOEUVRING (19 METRE LONG ARTICULATED VEHICLE (AV))





**FIGURE 6.4 – EMERGENCY VEHICLE MANOEUVRING SOUTH-EAST AND SOUTH-WEST CORNERS
 (TYPE 6 – URBAN FIRE TRUCK)**

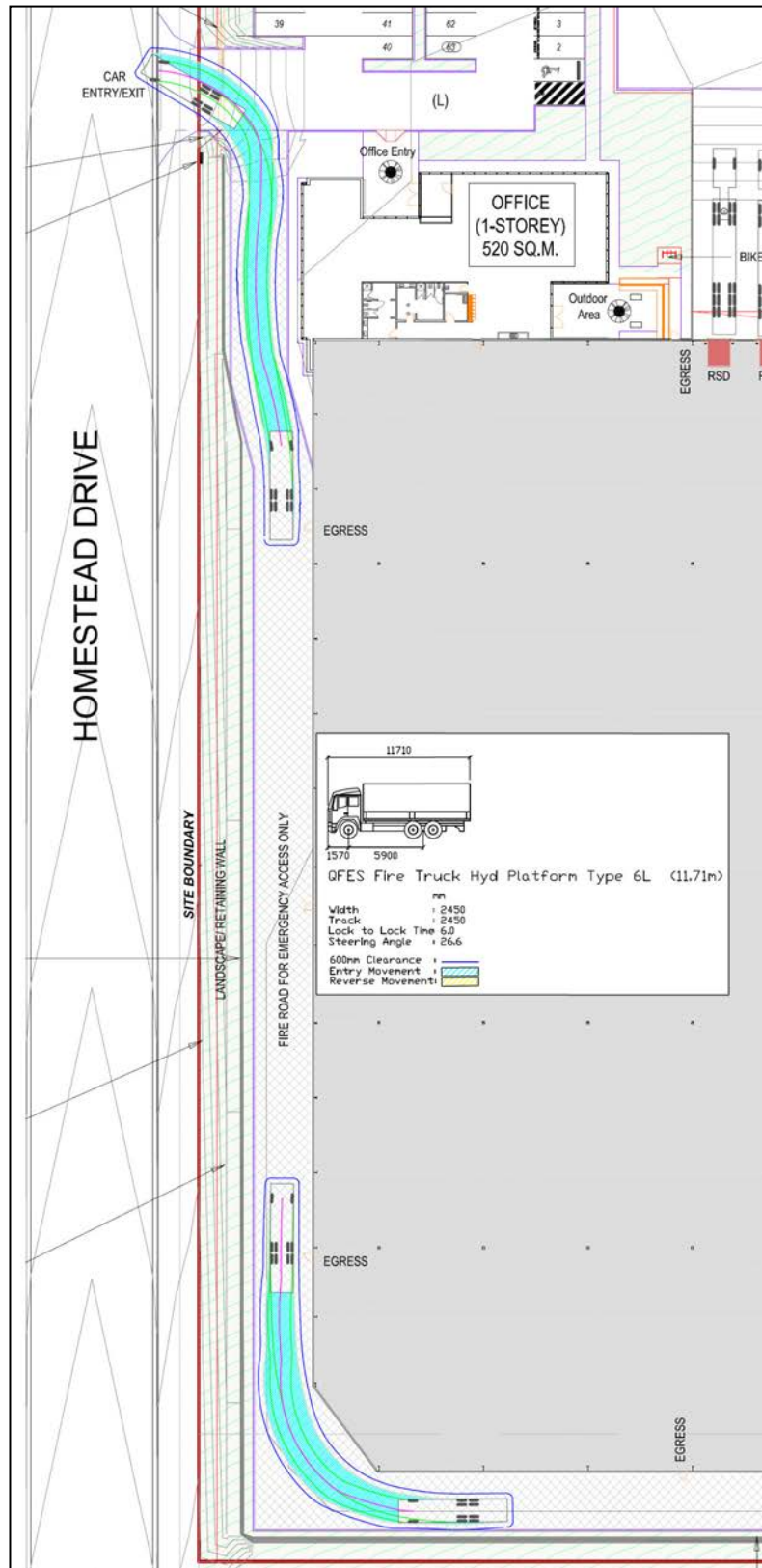


FIGURE 6.5 – EMERGENCY VEHICLE MANOEUVRING NORTH-EAST ACCESS AND NORTH-WEST CORNER (TYPE 6 – URBAN FIRE TRUCK)

7.0 SUMMARY OF CONCLUSIONS & RECOMMENDATIONS

- The subject site is located on the eastern side of Homestead Drive within the Vantage Industrial Estate.
- The proposed plan of development comprises of a warehouse building with associated office facilities. The proposed warehouse has been purpose designed for Goodyear Tyres. The facility will be operated by up to 63 staff on the premises at any one time.
- The proposed supply of 63 parking spaces will comfortably cater for the planned workforce and small number of visitors that will access the site.
- The geometric layout of the proposed parking facilities has generally been designed to comply with the relevant requirements specified in the Australian Standard publication AS2890.1:2004.
- In accordance with the Transport code, the proposed plan of development has been designed to allow vehicles up to a 20 metre long Articulated Vehicle (AV) to satisfactorily access and circulate throughout the site whilst maintaining 0.5 metres to obstructions at all times.

APPENDICES

APPENDIX A – TRANSPORT CODE RESPONSE

APPENDIX B – RESPONSE TO DRIVEWAYS AND VEHICULAR CROSSINGS CODE

APPENDIX A – TRANSPORT CODE RESPONSE

City Plan code template

This code template supports the preparation of a development application against either the acceptable outcome(s) or performance outcome(s) contained in the code. Development assessment rules are outlined in **Section 5.3.3** of the City Plan.

Please note:

For assessment against the overall outcomes, refer to the appropriate code.

Impact assessable development requires assessment against the strategic framework prior to using this template.

9.4.13 Transport code

9.4.13.1 Application

This code applies to assessing a material change of use for all development, except where:

- (a) the development is listed as self-assessment; and
- (b) establishing in an existing lawful non-residential premises; and
- (c) involving:
 - (i) no building work (other than an internal fit-out); or
 - (ii) only minor building work; and
- (d) the development results in no loss of car parking spaces.

When using this code, reference should be made to section 5.3.2 and, where applicable, section 5.3.3, in Part 5.

9.4.13.1 Purpose

- (1) The purpose of the Transport code is to ensure transport needs associated with the development of land are met.
- (2) The purpose of the code will be achieved through the following overall outcomes:
 - (a) Development –

-
- (i) ensures that onsite access and parking, manoeuvring and servicing areas are designed to result in a pedestrian focussed environment and promote a high quality public realm.
 - (b) To provide an integrated transport system that –
 - (ii) is convenient, efficient and flexible, being able to accommodate major events and provide a high level of connectivity between all activity centres, urban neighbourhoods, mixed use and industrial areas, inclusive of all modes, including active transport networks;
 - (iii) supports well designed urban development, which is concentrated within activity centres and urban neighbourhoods, that is easy to access via frequent public transport, walking and cycling, thereby reducing the need to travel by car;
 - (iv) supports community and privately operated transport services as viable alternatives to the private car;
 - (v) reduces congestion and car dependency and significantly increases levels of walking, cycling and public transport use; and
 - (vi) ensures existing and future transport corridors are protected.
 - (c) To provide active transport networks that –
 - (vii) are direct, safe, pleasant and comfortable to make walking and cycling an attractive alternative to the car;
 - (viii) ensure development within centres and urban neighbourhoods, including the light rail corridor have access to high quality active transport infrastructure including paths, bicycle parking and end of trip facilities;
 - (ix) are directly connected to local attractions and services;
 - (x) are clear and easily accessed; and
 - (xi) ensure the active transport infrastructure are completed in the early stages of development.
 - (d) To provide public transport networks that –
 - (xii) are of a standard and quality to provide an attractive alternative to the car;
 - (xiii) ensure district and regional level community uses are within walking distance of public transport facilities; and
 - (xiv) are clear and easily accessed.
 - (e) To provide road network that:
 - (xv) is developed and managed efficiently and meets the city's needs for the movement of people and goods, and can be safely shared by all users;
 - (xvi) ensures development impacts on amenity caused by traffic is consistent with the community's reasonable expectations for the intended use;

- (xvii) develops local road networks that are permeable and legible to facilitate a high level of connectivity, are safe and are shared with active and public transport.
- (xviii) ensures developments are designed for safe and efficient waste collection, carried out with minimal disruption or impact to the road network; and
- (xix) Development within the Coomera Town Centre area provides an integrated network of predominantly public streets to ensure efficient movement of pedestrians, cyclists, vehicles and strong public transport connections in accordance with **strategic framework map 8**.
- (f) Major freight corridors and haulage routes:
 - (xx) are protected from incompatible uses and ensure their safe and efficient operation.
- (g) Navigable waterways:
 - (xxi) support active and public transport facilities in waterfront locations for public water transport and enhance access to the city's waterways.

9.4.13.2 Criteria for assessment

Table 9.4.13-2: Transport code – for assessable development

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
Car parking			
PO1 Development provides off-street car parking to accommodate for the parking demand. OR Where located in the Centre zone or the Southport Priority Development Area at rates that: (a) reduce congestion and car dependency; (b) maximise the efficiency of car parking provided; and (c) encourage alternative transport options such as	AO1 Off-street car parking spaces are provided in accordance with the identified relevant table as follows:	NO – THE PROPOSED NUMBER OF CAR PARKING SPACES MEETS THE REQUIREMENTS OF THE TENANT, FOR WHOM THE DEVELOPMENT HAS BEEN PURPOSE DESIGNED.	
	Location All zones except: (a) Centre zone; (b) High density residential zone (where located in the Transport hub area in	Off-street car parking rate Table 9.4.13-3	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
walking, cycling and the use of public transport.	Figure 9.4.13-1); or (c) Special purposes zone – Special development area precinct – Southport Priority Development Area		
	Centre zone and High density residential zone where nominated in the Transport hub area in Figure 9.4.13-1	Table 9.4.13-4	
	Centre zone not nominated in the Transport hub area in Figure 9.4.13-1	Table 9.4.13-5	
	Special purposes zone – Special development area precinct – Southport Priority Development Area	Table 9.4.13-6	
	Note: Where off-street car parking cannot be reasonably provided, Council may consider improvements to active and public transport to offset the shortfall in car parking spaces.		

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
PO2 Development ensures that access to car parking spaces is provided for employees and bona fide visitors.	AO2 Car parking spaces for employees and visitors does not have gateways, doors or similar devices which restrict vehicular access.	COMPLIES	
PO3 Extensions to development are provided with additional car parking spaces to meet the increased parking demand. Note: Additional car parking spaces are not required where it can be demonstrated that the existing parking on-site was in excess of the City Plan requirements at the time of approval or the applicable parking rates currently in effect or results in the loss of existing pedestrian and cycling facilities.	AO3 Extensions to development provide additional car parking spaces based on the increased GFA.	NOT APPLICABLE	
Travel demand measures			
PO4 Development provides alternative modes of travel to reduce dependency on private vehicle usage.	AO4.1 Development that is identified in the Transport hub area in Figure 9.4.13-1: Transport hub area has the option to apply travel demand measures in accordance with Table 9.4.13-7: Travel demand measures .	NOT APPLICABLE	
	AO4.2 Development has the option to apply the car sharing travel demand measure in accordance	NOT APPLICABLE	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
	with Table 9.4.13-7: Travel demand measures, where: : (a) located in the Centre zone and not identified in the Transport hub area in Figure 9.4.13-1: Transport hub area; or (b) located in any another zone (except the Centre zone)		
Servicing			
PO5 Development accommodates for the required design service vehicle, including waste collection vehicles to service the development.	AO5 Development is designed to cater for the largest service vehicle in accordance with Table 9.4.13-9: Minimum class of service vehicle .	NOT APPLICABLE	
PO6 Development is designed to ensure: (a) that areas are provided for loading and unloading of service vehicles; (b) that loading operations are contained wholly within the site; and (c) that pathways from service areas to tenancies are an appropriate width to allow for pallets and trolleys to manoeuvre without conflicting with doors, gates or landscaping.	AO6.1 Development is designed to provide for the design service vehicle in accordance with Table 9.4.13-8: Service vehicle requirements .	COMPLIES – FOR 20 METRE AV	
	AO6.2 Service areas are designed in accordance with AS2890.2.	COMPLIES – FOR 20 METRE AV	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
PO7 Development ensures that service vehicle routes to and from the development minimise impacts on residential safety and amenity.	AO7 Development ensures that service vehicles use the shortest and most direct route to and from the major road network as identified on the Functional road hierarchy network as shown on the Zone map without impacting upon residential amenity and safety of surrounding local area.	COMPLIES	
Public transport network			
PO8 Development that attracts a high proportion of people using high frequency public transport incorporates on-site provision for integration with the public transport network. This includes appropriate pedestrian and cyclist linkages which are safe, attractive and convenient to use and connected with adjoining uses, public areas and the functional road hierarchy.	AO8 Development provides for the integration of an off-road public passenger transport facility for the following land uses: (a) Air services; (d) Educational establishment (new and existing); (e) Hospital; (f) Major sport, recreation and entertainment facility; (g) Shop (2,000m ² or greater); and (h) Tourist attraction.	NOT APPLICABLE	
PO9 Development that attracts a reasonable proportion of people utilising public transport and is located within 400m walking distance of an existing or future: (i) bus stop on a high frequency public transport route; (j) light rail station; and	AO9 Development that is located within 400m walking distance of a public passenger transport facility provide footpaths and crossing points to access the facility safely.	NOT APPLICABLE	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
(k) heavy rail station; (l) provides appropriate pedestrian and cyclist linkages, including crossing points, which are safe, attractive and convenient to use and connect with public transport infrastructure.			
Active transport network			
PO10 Development ensures that adequate off-street bicycle parking and end-of-trip facilities are provided to encourage use and meet the needs and volumes of predicted pedestrian and cyclist users.	AO10.1 Development provides off-street bicycle parking and end-of-trip facilities in accordance with Table 9.4.13-10: Bicycle parking rates and Table 9.4.13-11: End-of-trip facilities for active travel users . Note: This AO does not apply to the following uses: • Dwelling house; • Secondary dwelling; • Dual occupancy; or • Multiple dwelling (where there are 3 dwellings or less).	COMPLIES – APPROPRIATE BICYCLE PARKING FACILITIES WILL BE PROVIDED AS REQUIRED FOR THE OPERATIONAL USE OF THE SITE.	
	AO10.2 Development locates end-of-trip facilities within the site in close proximity to areas of bicycle parking and entrances to the site and/or building.	NOT APPLICABLE.	
	AO10.3 Signage for end-of-trip facilities and bicycle parking areas is provided within the site at: (a) ground level, external to buildings.	COMPLIES – APPROPRIATE SIGNAGE WILL BE PROVIDED AS REQUIRED.	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
	identifying the location of bicycle parking areas; and (b) at bicycle parking areas, indicating the location of end-of-trip facilities.		
PO11 Development ensures that access for pedestrians and cyclists from the street frontage and from any car parking or set down area to the main entry of the building is designed to provide safe movement. It should be convenient and clearly identifiable and avoid conflict with vehicle movements.	AO11.1 Development with 20 dwellings or less and have a single road frontage, provides a footpath, separated from the extension of the access driveway, from the property boundary for a distance equivalent to the zone front setback.	NOT APPLICABLE	
	AO11.2 Development with 20 dwellings or less and have more than 1 road frontage, provides a pedestrian and cyclist pathway from the primary road frontage that is separated from vehicle movements for a distance equivalent to the zone front setback.	NOT APPLICABLE	
	AO11.3 Development with 21 dwellings or more provides for at least 1 continuous pedestrian and cyclist pathway from each road frontage that is separated from vehicle movements.	NOT APPLICABLE	
	AO11.4 Pathways are to be designed and constructed in accordance with <i>AS1428.1</i> .	NOT APPLICABLE	
	AO11.5 Where a non-residential land use is to occupy an established residential premises, there is no requirement to provide for a pathway from any road frontage.	COMPLIES	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
PO12 Development ensures that off-street bicycle parking areas are designed to be: (a) located outside pedestrian movements paths and be visible from the street (casual surveillance); (m) easily accessible from the road; (n) arranged so that parking and unparking manoeuvres in a car park do not damage adjacent bicycles; (o) close as practical to the cyclists ultimate destination; (p) well lit by appropriate lighting; and (q) protected from the weather.	AO12 Development provides bicycle parking within the site that is designed, constructed and maintained in accordance with the <i>Cycling Aspects of Austroads</i> and <i>AS2890.3</i> and the following: (b) employee and residential bicycle parking is provided to a User Class 2 classification accessed by users with a key or security device; (r) visitor (residential and non-residential) is provided to a User Class 3 classification, positioned at ground level in a visible line of sight to the developments main entry; and (s) ramps and pathways be provided as direct as possible from the roadway and/or pathways to the bicycle parking facilities.	COMPLIES	
PO13 Development ensures that access for pedestrians and cyclists to and from the site is designed to be direct, safe, pleasant and comfortable environments that connect people with places of local interest, services, public transport facilities and neighbourhoods.	AO13 Development provides for a disability access compliant shared path or footpath along the frontage of the site within the road reserve, designed and constructed in accordance with the Functional road hierarchy network as shown on the Zone map and SC6.9 City Plan policy – Land development guidelines . Note: This AO does not apply to the following uses: • Dwelling house; • Secondary dwelling; • Dual occupancy; or	COMPLIES	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
	Multiple dwelling (where there are 3 dwellings or less).		
PO14 Development contributes to the safe and efficient provision and operation of the bicycle network.	AO14.1 Development that abuts a service road as shown on the Bicycle network classification map provides: (c) 2m on-road exclusive bike lane to be constructed along the full frontage of the site – development side only; and (t) on-road exclusive bicycle lanes (full-time; minimum 2.0 metres in width) through any new intersection with the required navigational aids such as (but not limited to) directional signage, route markers, pavement treatments and schematic signage. Note: This AO does not apply to the following uses: - Dwelling house; - Secondary dwelling; - Dual occupancy; or - Multiple dwelling (where there are 3 dwellings or less)	NOT APPLICABLE	
	AO14.2 Development that abuts a Principal route or District route as shown on the Bicycle network classification map provides a 3m off-road shared footpath to be constructed along the full frontage of the site – development side only. Note: This AO does not apply to the following uses: Dwelling house;	NOT APPLICABLE	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
	• Secondary dwelling; • Dual occupancy; or • Multiple dwelling (where there are 3 dwellings or less).		
	AO14.3 Development that abuts a Neighbourhood route as shown on Bicycle network classification map provides a 2.5m off-road shared footpath to be constructed along the full frontage of the site – development side only. Note: This AO does not apply to the following uses: • Dwelling house; • Secondary dwelling; • Dual occupancy; or • Multiple dwelling (where there are 3 dwellings or less).	NOT APPLICABLE	
	AO14.4 Development that abuts a Principal route, District route or Neighbourhood route as shown on Bicycle network classification map provides a 2m wide on-road cycle lanes. Note: This AO does not apply to the following uses: • Dwelling house; • Secondary dwelling; • Dual occupancy; or • Multiple dwelling (where there are 3 dwellings or less).	NOT APPLICABLE	
	AO14.5 Footpaths and on-road cycle lanes are designed and constructed in accordance with	COMPLIES	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
	SC6.9 City Plan policy – Land development guidelines.		
	AO14.6 Development does not remove or compromise existing on-road and off-road bicycle and pedestrian infrastructure and facilities.	COMPLIES	
Roads and freight			
PO15 Where new development creates public road, the road is to be constructed to an appropriate standard.	AO15.1 Development provides public roads that are designed and constructed in accordance with SC6.9 City Plan policy – Land development guidelines and <i>Austroroads</i> .	NOT APPLICABLE	
	AO15.2 Development provides public roads which prevent the need for traffic calming devices to manage vehicle design speed, deter through traffic and create safe conditions for pedestrians and cyclists.	NOT APPLICABLE	
PO16 Where development provides for an access easement, the easement: (d) is an adequate width; (u) is constructed to a standard appropriate to the situation; and (v) does not result in unreasonable detriment or nuisance to an adjacent premises.	AO16 No acceptable outcome provided.	NOT APPLICABLE	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
PO17 Development ensures that corner lots to a public roadway provide a corner truncation to ensure safety, functioning and visibility at the intersection.	AO17.1 Development provides for a corner truncation, if not already provided, at each corner of a site to a public roadway.	COMPLIES	
	AO17.2 Land required to provide a corner truncation made by three equal chords of a 6m radius (8m where in an Industrial estate) on the corner of the site to a public roadway must be dedicated to Council as road reserve.	COMPLIES	
	AO17.3 At roundabouts and intersections, the truncation must be enlarged to maintain verge widths and sight line requirements.	NOT APPLICABLE	
	AO17.4 In brownfield areas, the truncation must not reduce the size of the existing verge area.	NOT APPLICABLE	
	AO17.5 At the entry/exit to a laneway, the truncation is an area made by one chord of a 2m radius.	NOT APPLICABLE	
PO18 Development that provides a new intersection is designed to ensure: (e) safety and does not compromise the efficiency, function, convenience of use or capacity of the road network; (w) verge areas that provide sufficient area for safe	AO18.1 Development that creates a new intersection within a public roadway ensures that the intersection is designed and constructed in accordance with <i>Austroads</i> and SC6.9 City Plan policy – Land development guidelines .	NOT APPLICABLE	
	AO18.2 In brownfield areas, verge areas are not to be reduced but may be widened to accommodate essential services and infrastructure, including	NOT APPLICABLE	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
pedestrian and cycling movement; and (x) sufficient area to provide essential services and infrastructure, including traffic management.	bicycle and pedestrian pathways and public transport infrastructure.		
Ingress and egress			
PO19 Development ensures that all vehicles ingress and egress the site in a forward gear.	AO19 Development is designed so that all vehicle classes enter and exit the site in a forward gear, unless otherwise stated in Table 9.4.13-8: Service vehicle requirements . Note: This AO does not apply to the following uses: • Dwelling house; • Secondary dwelling; • Dual occupancy; or • Multiple dwelling (where there are 3 dwellings or less).	COMPLIES	
Integrated transport and land use			
PO20 Development is: (f) appropriately located to reduce the need to travel by car and is accessible by public transport, walking and cycling; and (y) designed to reduce impacts on the amenity, safety and operation of the road network through appropriate	AO20 A Traffic Impact Assessment is prepared and submitted to Council in the following instances: (g) when the development is identified as “any other use not listed in this table” or “any other undefined use” in Part 5 – Tables of assessment ; (z) when the development is freight dependent; (aa) when vehicle access will be required to a road identified on the Function road	COMPLIES	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
measures to ensure that the function and capacity of the road network is not compromised.	hierarchy map; (bb) when vehicle access will be required to a service road as identified on the Pacific motorway service road types overlay map; (cc) when vehicle access will be required within 100m of a signalised intersection; (dd) when vehicle access will be required within 50m of a roundabout; or (ee) when a new intersection is proposed.		
PO21 Development is not located in areas that compromises future transport corridors, including roads, public transport and active transport.	AO21 Land shown on the zone maps for the purposes of existing or future road network infrastructure, is to be dedicated to Council as public road.	COMPLIES	
PO22 Staged development is planned, designed and constructed to ensure that: (h) the construction of active and public transport infrastructure occurs in initial stages of development; and (ff) adequate car parking is provided for each stage to support the function of the development.	AO22 No acceptable outcome provided.	NOT APPLICABLE	
PO23 Development within the Coomera Town Centre area	AO23 No acceptable outcome provided.	NOT APPLICABLE	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
provides an integrated network of predominantly public streets to ensure efficient movement of pedestrians, cyclists, vehicles and strong public transport connections in accordance with strategic framework map 8 .			
General			
PO24 New development must ensure that continuous circulation aisles must be provided linking all driveways and intersections to provide access to car parking modules and service areas, and avoid the use of the road network when accessing different vehicular areas of the development.	AO24.1 All car parking modules and service areas are accessed by circulation aisles.	COMPLIES	
	AO24.2 Circulation aisles are not disconnected by car parking modules or service areas.	COMPLIES	
	AO24.3 All access driveways are linked by circulation aisles free from parking manoeuvres.	COMPLIES	
	AO24.4 All vehicles can circulate throughout the new development in a forward gear without performing reverse manoeuvres.	COMPLIES	
PO25 Off street car parking areas are designed to: (a) provide a legible and efficient internal layout; (gg) ensure the safety and security of users; (hh) clearly distinguishable from pedestrian paths and entry	AO25.1 Off street car parking is designed, constructed, line marked and maintained in accordance with AS2890.1, AS2890.2, AS2890.6 and AS1428.1.	COMPLIES	
	AO25.2 The entry/exit to a driveway, internal to the property boundary of the development, is separated by a central island containing an intercom or similar electronic access device.	NOT APPLICABLE	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
points; (ii) be easily negotiated by vehicles and pedestrians including persons with a disability; (jj) ensure that there is no disruptions to or queues onto the public road network; (kk) provide sight distances from driveways to ensure visibility between vehicles on the driveway and pedestrians on the verge; and (ll) be marked and maintained to the current relevant standard.	The intercom (or similar device) is to be setback 4m from the property boundary. OR The intercom: (b) is positioned on the right hand side of the access driveway against a wall; and (mm) setback 4m from the property boundary, internal to the development. Note: The intercom system is only required where visitor car parking is provided behind a security gate.		
	AO25.3 Development does not provide pavement humps or raised platforms in queuing areas.	COMPLIES	
	AO25.4 Development is designed so that vehicles do not reverse across marked pedestrian crossings.	COMPLIES	
PO26 Car parking spaces do not restrict any other space unless it is in a tandem arrangement where no inconvenience arises from its use.	AO26.1 Tandem car parking (2 car spaces parked nose to tail) are counted as 1 space, except in the following cases: (i) the spaces are designated and signed for residential purposes of the same dwelling; or (nn) the spaces are designed and signed for the occupants of the site, in a single tenancy; or (oo) the off-street car parking is to be operated as a privately operated public car park with on-site management whereby the off-street tandem car parking spaces may be	NOT APPLICABLE	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
	counted as no greater than 1.5 spaces.		
	AO26.2 The minimum length of a tandem car space is 10.4m.	NOT APPLICABLE	
	AO26.3 The minimum length of a tandem garage is 11m.	NOT APPLICABLE	
PO27 Development ensures that where provision is made for a porte cochere, it is designed to enable vertical clearance, manoeuvring, access and queuing of vehicles. The capacity of the porte cochere must accommodate vehicles entirely within the site, including the queuing of vehicles.	AO27 The porte cochere is to be a minimum of 4.5m in height.	NOT APPLICABLE	

APPENDIX B –RESPONSE TO DRIVEWAYS AND VEHICULAR CROSSINGS CODE

City Plan code template

This code template supports the preparation of a development application against either the acceptable outcome(s) or performance outcome(s) contained in the code. Development assessment rules are outlined in **Section 5.3.3** of the City Plan.

Please note:

For assessment against the overall outcomes, refer to the appropriate code.

Note: The whole of the planning scheme is identified as the assessment benchmark for impact assessable development. This specifically includes assessment of impact assessable development against this strategic framework. The strategic framework may contain intentions and requirements that are additional to and not necessarily repeated in zone, overlay or other codes. In particular, the performance outcomes in zone codes address only a limited number of aspects, predominantly related to built form. Development that is impact assessable must also be assessed against the overall outcomes of the code as well as the strategic framework.

9.4.2 Driveways and vehicular crossings code

9.4.2.1 Application

This code applies to assessing operational work for vehicle crossing works and material change of use for any development involving vehicle access or driveway works where indicated within **Part 5 Tables of assessment**.

When using this code, reference should be made to **Section 5.3.2** and, where applicable, **Section 5.3.3**, in **Part 5**.



Figure 9.4.2-1

Illustration showing driveway and vehicle crossing for access to parking spaces

9.4.2.2 Purpose

- (1) The purpose of the Driveways and vehicular crossings code is to provide design standards for the construction, repair or modification to a driveway and/or a vehicular crossing and to ensure that the decisions are compatible.
- (2) The purpose of the code will be achieved through the following overall outcomes:
 - (a) Vehicular crossings provide safe access from the edge of the road carriageway to the property boundary.
 - (b) Vehicular crossings are located and constructed to avoid adverse impacts on City or utility infrastructure.
 - (c) Vehicular crossings are constructed to a standard that is consistent with a standard vehicle.
 - (d) Vehicular crossings are designed to ensure that there is minimal loss of on-street car parking spaces.
 - (e) Driveways provide safe access from the property boundary to the on-site vehicle accommodation or standing area.
 - (f) Driveways are located to ensure damage to existing street trees located within the verge is avoided.
 - (g) Driveways are located to retain space for the future planting of street trees.
 - (h) The construction, location and design of vehicular crossings and driveways prevent interference with the safe movement of vehicles or the safe use of the footpath to maintain the amenity of the area.
 - (i) The design and construction of the driveway and vehicular crossing are such that vertical and horizontal alignments provide a continuous, smooth access of good rideability and clearance for vehicles and driveway and vehicular crossing do not cause adverse stormwater drainage impacts.

9.4.2.3 Specific benchmarks for assessment

Table 9.4.2-3: Driveways and vehicular crossings code – assessable development for driveways

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
Location			
PO1 The location of the driveway is considered at the design stage of the development to ensure it does not unnecessarily damage street trees and	AO1 The design of the driveway: (a) does not cause damage to street trees in the verge; and	COMPLIES	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use						
allows space for the planting of street trees within the verge.	(b) retains space for the planting of street trees within the verge.								
Design									
PO2 The driveway is designed and constructed to ensure: (c) safe access for a B85 vehicle (AS2890) from the property boundary to the on-site vehicle accommodation or standing area; (d) it does not cause adverse stormwater drainage impacts on or off the site; and (e) safe pedestrian movement in the proximity of the site.	AO2 The driveway is designed in accordance with the following design standards:	COMPLIES							
	<table><tr><th>Land use</th><th>Design standard</th></tr><tr><td> - Dual occupancy - Dwelling house - Multiple dwellings (where the development is for townhouses) </td><td>Queensland Development Code – NMP 1.1 - Driveways</td></tr><tr><td>All other land uses</td><td>AS/NZS 2890.1:2004 – Parking facilities – Part 1: Off-street car parking</td></tr></table>	Land use	Design standard	- Dual occupancy - Dwelling house - Multiple dwellings (where the development is for townhouses)	Queensland Development Code – NMP 1.1 - Driveways	All other land uses	AS/NZS 2890.1:2004 – Parking facilities – Part 1: Off-street car parking		
	Land use	Design standard							
	- Dual occupancy - Dwelling house - Multiple dwellings (where the development is for townhouses)	Queensland Development Code – NMP 1.1 - Driveways							
	All other land uses	AS/NZS 2890.1:2004 – Parking facilities – Part 1: Off-street car parking							
OR Where particularly restrictive physical conditions exist and the above standard arrangements are not attainable, the design and construction of the proposed driveway is certified by a RPEQ having regard to the following: (f) Disability Discrimination Act 1992; (g) AS 2890.1; (h) QUDM; and (i) Good engineering practice.									

Table 9.4.2-4: Driveways and vehicular crossings code – assessable development for vehicular crossings

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
Construction of vehicular crossings			
PO1 The vehicle crossing is designed and constructed to ensure: (a) safe access for a B85 vehicle (AS2890) from the road carriageway to the property boundary; (b) it does not cause adverse stormwater drainage impacts on or off the site; and (c) safe pedestrian movement in the proximity of the site.	AO1 Prior to the use commencing a vehicular crossing is constructed to provide access from the road to the property. Either: (j) The vehicular crossing is designed and constructed in accordance with the relevant vehicular crossing standards drawing in SC6.9 City Plan policy – Land development guidelines; or (k) where particularly restrictive physical conditions exist and the above standard arrangements are not attainable, the design and construction of the proposed vehicular crossing is certified by a RPEQ having regard to the following: (i) <i>Disability Discrimination Act 1992</i>; (ii) <i>AS 2890.1</i>; (iii) <i>QUDM</i>; and (iv) Good engineering practice.	WILL COMPLY	
PO2 Location and construction of the vehicular crossing avoids damage to utility services, pathways, kerbs, road pavement and seal and other municipal	AO2 The vehicular crossing is designed and constructed in accordance with the relevant vehicular crossing standards in SC6.9 City Plan policy – Land	COMPLIES	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
infrastructure.	development guidelines.		
Maximum number of vehicular crossings per site			
PO3 The number of vehicular crossings per site are minimised to avoid the loss of on-street car parking spaces and to prevent adverse interference with: (l) the safety, capacity and operations of the existing or planned road network; (m) the proposed driveway; and (n) cycleways or pedestrian footpaths.	AO3 The maximum number of vehicular crossings per site, for the following land uses, is as follows:		NO – THREE VEHICLE CROSSOVERS ARE PROPOSED TO ENSURE SATISFACTORY SEPARATION OF LIGHT AND HEAVY VEHICLES. THIS IS CONSIDERED TO BE SATISFACTORY GIVEN THE LENGTH OF THE ROAD FRONTAGE.
	Land use	Maximum number of vehicular crossings per site	
	Dwelling house	1 OR 2 - when the road frontage at the kerb is at least 40m	
	Dual occupancy Multiple dwelling	1 OR 2 - where the road frontage at the kerb is greater than 20m	
	Non–residential use	2	
Separation distances			
PO4 Vehicular crossings are appropriately separated from other vehicular crossings and side property boundaries	AO4 Vehicular crossings are separated from:		COMPLIES
	Instance	Minimum distance (m)	

Performance outcomes	Acceptable outcomes		Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
to prevent interference with: (o) the safety, capacity and operations of the existing or planned road network; (p) adjoining properties; and (q) cycleways or pedestrian footpaths.	Any other vehicular crossing	3m		
	Any side property boundary: for residential development of 2 dwellings or less	1.5m		
	All other development	2m		
Location				
PO5 Vehicle access to a public roadway is safe and does not compromise the efficiency, function, convenience of use or capacity of the road network.	AO5.1 The location of the vehicular crossing to a public roadway is consistent with AS2890.1 and AS2890.2.		COMPLIES	
	AO5.2 No new vehicular crossings are created on roads identified on the Functional Road Hierarchy as shown on the Zone maps or the Pacific motorway service road types overlap map .		COMPLIES	
PO6 Vehicular crossings are located to: (r) avoid damage to existing street trees located within the verge; and (s) retain space for the future planting of street trees within the verge.	AO6 No acceptable outcome provided.		COMPLIES	
Sight distances and lines				
PO7 Vehicular crossings are designed to	AO7.1 Safe sight distances are provided,		COMPLIES	

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome	Internal use
prevent conflict between vehicles with cyclists and pedestrians.	based on the vehicle speed at the vehicular crossing. Note: This AO does not apply to the following uses: • Dwelling house; • Secondary dwelling; • Dual occupancy; or • Multiple dwelling (where there are 3 dwellings or less).		
	AO7.2 Vehicular crossings are designed to provide safe sight lines for vehicles exiting the vehicular crossing in accordance with AS2890.2. Where no service vehicle is required to access the site, including waste collection, the requirements for sight lines at the vehicular crossing are in accordance with AS2890.1. Note: This AO does not apply to the following uses: • Dwelling house; • Secondary dwelling; • Dual occupancy; or • Multiple dwelling (where there are 3 dwellings or less).	COMPLIES	



APPENDIX G

NOISE IMPACT ASSESSMENT

VantageYatala



gassman
development
perspectives

planning
environment
landscape
engineering
survey



Goodyear
Proposed Industrial Warehouse
Lot 205 / 60 Stapylton Jacobs Well Road
Stapylton

ACOUSTIC REPORT



Client:
Fraser's Property

Reference:
2021559 R01C Goodyear Stapylton Jacobs Well Yatala ENV.docx

Date Issued:
29 November 2021

Document Information

Contact Details

Acoustic Works
Unit 2/8 Castlemaine Street
Coorparoo QLD 4151
(07) 3393 2222
ABN: 56 157 965 056

PO Box 1271
Coorparoo DC
QLD 4151

Greg Pearce
Email: gpearce@acousticworks.com.au

Mark Enersen
Email: menersen@acousticworks.com.au

Report Register

Date	Revision	Author	Reviewer
05/11/2021	R01A	Michael Gunning	Greg Pearce
29/11/2021	R01B	Michael Gunning	Greg Pearce
29/11/2021	R01C	Michael Gunning	Greg Pearce

Disclaimer

Reports produced by Acoustic Works are prepared for a particular Client's objective and are based on a specific scope, conditions and limitations, as agreed between Acoustic Works and the Client. Under no circumstances shall information and/or report(s) prepared by Acoustic Works be used by other parties other than the Client without first obtaining written permission from Acoustic Works.

TABLE OF CONTENTS

1.Introduction	4
2.Site Description	4
2.1 Site Location	4
2.2 Proposal	5
2.3 Acoustic Environment	5
3.Equipment	5
4.Receivers and Noise Monitoring	5
4.1 Receiver Locations.....	6
4.2 Unattended Ambient Noise Monitoring.....	7
5.Measured Noise Levels	7
5.1 Ambient Noise Levels.....	7
6.Noise Criteria.....	8
6.1 Environmental Noise Criteria.....	8
6.1.1 Acoustic Quality Objectives.....	8
6.1.2 Background Creep	8
7.Onsite Activities	9
7.1 Methodology	9
7.2 Source Sound Power Levels.....	9
7.3 Predicted Noise Levels	9
7.3.1 Background Creep Criteria.....	9
7.3.2 Acoustic Quality Objectives.....	10
7.4 Noise Contour Maps.....	10
8.Recommendations.....	11
8.1 Onsite Activities.....	11
8.1.1 Onsite Mechanical Plant	11
9.Conclusion	11
10. Appendices	12
10.1 Development Plans.....	12
10.2 Noise Monitoring Charts	16

TABLE INDEX

<i>Table 1: Measured ambient noise levels – all time periods.....</i>	<i>7</i>
<i>Table 2: Acoustic Quality Objectives at Noise Sensitive Properties.....</i>	<i>8</i>
<i>Table 3: Background creep noise limits</i>	<i>8</i>
<i>Table 4: Source sound power levels.....</i>	<i>9</i>
<i>Table 5: Predicted noise levels - Background Creep LAeq 15min.....</i>	<i>9</i>
<i>Table 6: Predicted noise levels - Acoustic Quality Objectives 1 hour.....</i>	<i>10</i>

FIGURE INDEX

<i>Figure 1: Site Location (Not to Scale).....</i>	<i>4</i>
<i>Figure 2: Receivers and Noise Monitoring Location</i>	<i>6</i>
<i>Figure 3: Predicted Noise Levels - LAeq, T.....</i>	<i>10</i>

1. Introduction

This report is in response to a request by Frasers Property for an environmental noise assessment of a proposed warehouse to be located on Lot 205 of the Vantage Yatala subdivision, located at 60 Stapylton Jacobs Well Road, Stapylton. To facilitate the assessment, unattended noise monitoring was conducted in the vicinity of nearby residence to establish the criteria for onsite activities. Based on the data obtained, onsite activities were assessed to surrounding sensitive receivers with recommendations for acoustic treatments specified in this report.

2. Site Description

2.1 Site Location

The proposed site is described by the following:

60 Stapylton Jacobs Well Road, Stapylton
Part of Lot 501 on SP295994

Refer to Figure 1 for site location.

Figure 1: Site Location (Not to Scale)



A comprehensive site survey was conducted on the 17th October 2021 and identified the following:

- a) The site is currently vacant.
- b) The surrounding area consists primarily of industrial/commercial land uses.
- c) Single storey and highset dwellings are located adjacent the western site boundary.
- d) Stapylton Jacobs Well Road separates the subdivision from agricultural/rural residential land uses to the northwest.
- e) A new access road is located adjacent the northern, eastern and southern site boundaries.
- f) The Pacific Motorway is located approximately 430m southwest of the site.

2.2 Proposal

The proposal is to construct a warehouse/industrial development on Lot 205 of the Vantage Yatala subdivision as follows:

- Total site area of 42,669m².
- Warehouse with total area of 25,000m² (including warehouse office of 50m² and amenities)
- Office building with total area of 520m²
- Car park with 63 spaces.
- Proposed 24/7 hours of operation.

Refer to the Appendix for development plans.

2.3 Acoustic Environment

The surrounding area is primarily affected by existing industrial/commercial activities in the area and road traffic noise from Stapylton Jacobs Well Road and the Pacific Motorway.

3. Equipment

The following equipment was used to record noise levels:

- Rion NL42 Environmental Noise Monitor
- BSWA Technology Co. Ltd Sound Calibrator

The Environmental Noise Monitor holds current NATA Laboratory Certification and was field calibrated before and after the monitoring period, with no significant drift from the reference signal recorded.

4. Receivers and Noise Monitoring

4.1 Receiver Locations

The nearest residential receiver locations were identified as follows;

1. Single storey and highset dwellings fronting Cedar Drive to the west.
2. Highset dwelling at 33 Stapylton Jacobs Well Road to the northwest.
3. Residential land uses at Hillside Drive to the north.

These locations were chosen as being representative of the nearest residential receivers to the proposed development. Refer to Figure 2 for receiver locations.

Figure 2: Receivers and Noise Monitoring Location



4.2 Unattended Ambient Noise Monitoring

A Rion NL42 environmental noise monitor was placed onsite at 60 Stapylton Jacobs Well Road to measure existing ambient noise levels. The monitor was located in a free field position with the microphone approximately 1.4 metres above ground surface level. The noise monitor was set to record noise levels between the 11th and 24th October 2019.

The environmental noise monitor was set to record noise levels in "A" Weighting, Fast response using 15 minute statistical intervals. Ambient noise monitoring was conducted generally in accordance with Australian Standard AS1055:2018 *Acoustics – Description and measurement of environmental noise*. For the unattended noise monitoring location refer to Figure 2.

5. Measured Noise Levels

The following table presents the results from the unattended noise survey. Any periods of inclement weather or extraneous noise were omitted from the measurements prior to determining the results.

5.1 Ambient Noise Levels

The measured ambient noise levels measured at the monitoring location are as follows;

Table 1: Measured ambient noise levels – all time periods

Day	Date	L90 dB(A)		
		Day	Evening	Night
Saturday	12/10/19	53	50	45
Sunday	13/10/19	48	47	46
Monday	14/10/19	50	53	48
Tuesday	15/10/19	51	56	49
Wednesday	16/10/19	52	52	52
Thursday	17/10/19	53	55	52
Friday	18/10/19	48	50	50
Saturday	19/10/19	45	53	46
Sunday	20/10/19	49	47	46
Monday	21/10/19	49	48	46
Tuesday	22/10/19	48	49	49
Wednesday	23/10/19	47	47	49
Overall value		49	51	48

Refer to the appendix for graphical representation.

6. Noise Criteria

6.1 Environmental Noise Criteria

The noise criteria as applied by City of Gold Coast are as follows;

6.1.1 Acoustic Quality Objectives

Table 2 presents the acoustic quality objectives at noise sensitive receptors as detailed in Schedule 1 of the Environmental Protection Policy (Noise) 2008.

Table 2: Acoustic Quality Objectives at Noise Sensitive Properties

Sensitive Receptor	Time of Day	Acoustic Quality Objectives, dB(A)		
		$L_{Aeq,adj,1hr}$	$L_{A10,adj,1hr}$	$L_{A1,adj,1hr}$
Dwelling (outdoors)	Day and Evening (7am – 10pm)	50	55	65
Dwelling (Indoors)	Day and Evening (7am – 10pm)	35	40	45
	Night (10pm – 7am)	30	35	40

6.1.2 Background Creep

The Background Creep criteria are as follows;

Time-varying noise:

$$L_{Aeq,adj,T} \leq \text{Ambient } L_{A90,T} + 5\text{dB(A)}$$

Steady-state noise:

$$L_{A90,T} \leq \text{Ambient } L_{A90,T}$$

The time period (T) is a time interval of at least 15 minutes, or if the noise continues for less than 15 minutes, the duration of the noise source.

Based on the results of ambient noise monitoring, the project specific background creep noise limits are shown in Table 3.

Table 3: Background creep noise limits

Time Period	Noise Level Limits SPL dBA	
	$L_{Aeq,adj,T}$	$L_{A90,T}$
Day 7am – 6pm	54	49
Evening 6pm – 10pm	56	51
Night 10pm – 7am	53	48

7. Onsite Activities

7.1 Methodology

Noise predictions were determined with SoundPLAN 8.2 noise modelling software, which applied CONCAWE methodology. The CONCAWE algorithm takes into account distance, intervening terrain and buildings, screening features and meteorological conditions. For the purposes of this assessment, neutral wind conditions were applied in the noise model.

7.2 Source Sound Power Levels

Source sound power levels associated with normal operation was assessed based on previous measurements of similar activities and are presented in Table 4.

Table 4: Source sound power levels

Activity	Sound Power Level, dB(A)
Truck passbys	104
Truck air brakes	112
Truck reverse alarm	105
Car passbys	77
Car door closure	85
Forklifts	92

All activities include corrections for tonality and impulsiveness as per AS1055:2018, where applicable.

7.3 Predicted Noise Levels

7.3.1 Background Creep Criteria

Predicted noise levels for the site, utilising the data in Table 4, is presented in Table 5 and compared to the Background Creep criteria. A noise contour map for the site is presented in Section 7.4.

Table 5: Predicted noise levels - Background Creep LAeq 15min

Receiver	Predicted Noise Level, dB(A) Leq, 15min	Leq Compliance		
		Day	Evening	Night
Criteria		54	56	53
1. Cedar Drive (west)	42	Yes	Yes	Yes
2. 33 Stapylton Jacobs Well Rd (northwest)	34	Yes	Yes	Yes
3. Hillside Drive (northeast)	29	Yes	Yes	Yes

Compliance is predicted with the Background Creep criteria for the 24 hour operation of the site on the condition the recommendations in Section 8 are implemented.

7.3.2 Acoustic Quality Objectives

Predicted noise levels for the modelled scenario, compared to the Acoustic Quality Objectives, are presented in Table 6. A noise contour map for the site is presented in Section 7.4.

Table 6: Predicted noise levels - Acoustic Quality Objectives 1 hour

Receiver	Predicted Noise Level, dB(A) Leq, 1 hour		Predicted Noise Level, dB(A) L10, 1 hour		Predicted Noise Level, dB(A) L01, 1 hour		Leq Compliance			LA10 Compliance			LA01 Compliance		
							Day/Eve		Night	Day/Eve		Night	Day/Eve		Night
	External	Internal	External	Internal	External	Internal	External	Internal	Internal	External	Internal	Internal	External	Internal	Internal
Criteria							50	35	30	55	40	35	65	45	40
1. Cedar Drive (west)	43	33	47	37	51	41	Yes	n/a	n/a	Yes	n/a	n/a	Yes	n/a	n/a
2. 33 Stapylton Jacobs Well Rd (northwest)	35	25	38	28	43	33	Yes	n/a	n/a	Yes	n/a	n/a	Yes	n/a	n/a
3. Hillside Drive (northeast)	30	20	33	23	38	28	Yes	n/a	n/a	Yes	n/a	n/a	Yes	n/a	n/a

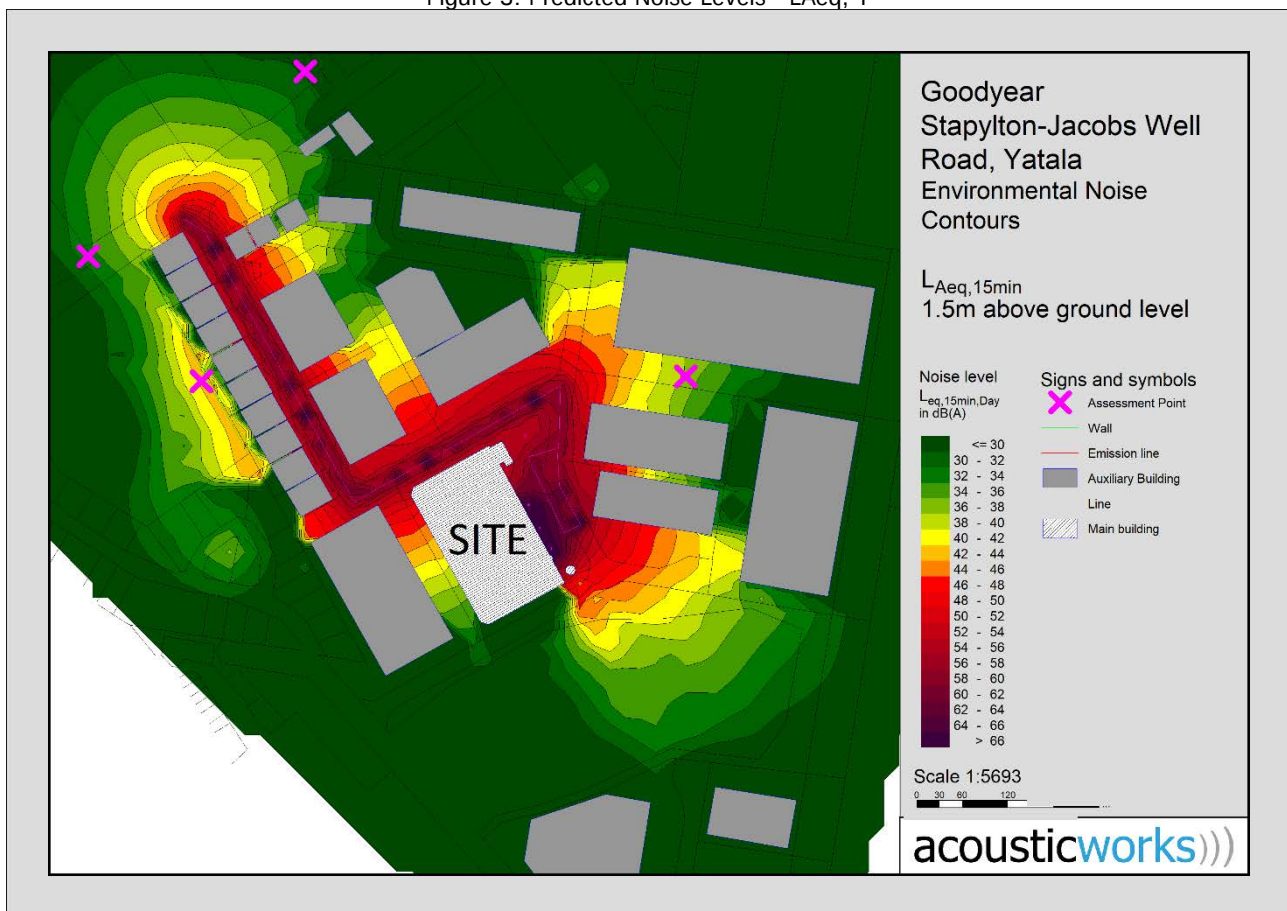
Compliance is predicted with the external Acoustic Quality Objectives for the proposed 24/7 operation for the site on the condition the recommendations in Section 8 are implemented.

In regards to the internal Acoustic Quality Objectives, due to the surrounding environment (i.e. industry/local roads/Pacific Motorway) the existing background noise levels already exceed the internal Acoustic Quality Objectives for all time periods. Therefore, it is not possible to apply the internal Acoustic Quality Objectives for this development.

7.4 Noise Contour Maps

A noise contour map for the development, utilising the noise data in Table 4, is presented in Figure 3.

Figure 3: Predicted Noise Levels - LAeq, T



8. Recommendations

8.1 Onsite Activities

Compliance is predicted for the proposed 24/7 operation for the site on the condition the following recommendations are implemented:

- The warehouse should incorporate a tilt concrete panel for all walls facing northwest, southwest and southeast to a minimum height of 2.1 metres.

8.1.1 Onsite Mechanical Plant

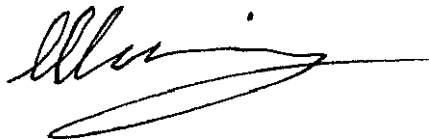
No information regarding any new mechanical services was available at the time of the assessment. We recommend that any new mechanical plant is designed to comply with the criteria stated in Section 6.1.2 with an assessment by qualified acoustic consultant to be conducted prior to installation.

9. Conclusion

An environmental noise assessment was conducted for the proposed warehouse/industrial development at 60 Stapylton Jacobs Well Road, Yatala. On the condition the recommendations detailed in Section 8 are implemented, compliance is predicted with City of Gold Coast assessment criteria.

If you should have any queries please do not hesitate to contact us.

Report Prepared By



Michael Gunning M.ArchSci
Acoustic Consultant

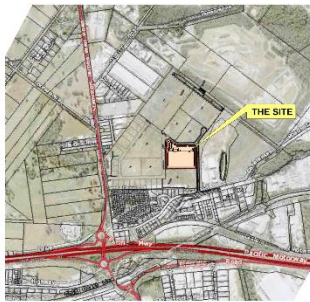
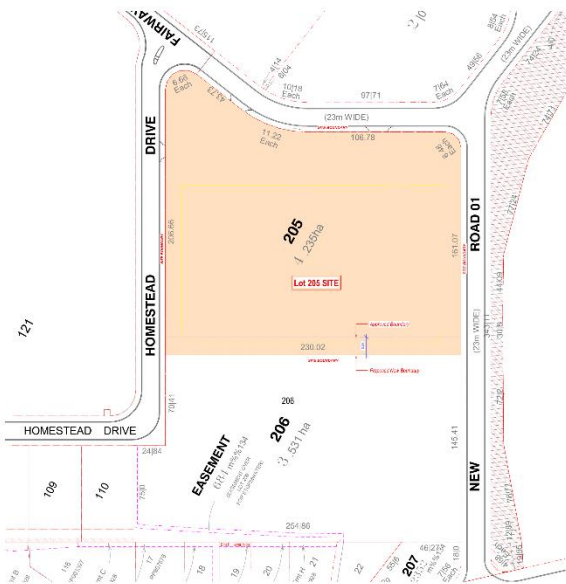
acousticworks)))

10. Appendices

10.1 Development Plans

PROPOSED SEPCULATIVE WAREHOUSE FACILITY

VANTAGE YATALA LOT 205, STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207



1 Site Location Plan

2 Vicinity Map



PROPOSED GOODYEAR WAREHOUSE FACILITY

Site Name	PROPOSED GOODYEAR WAREHOUSE FACILITY
Site Address	LOT 205, STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207
Site Area	2.23ha
Site Zoning	INDUSTRIAL (I1)
Site Owner	FRASER'S PROPERTY
Site Contact	21555 1111

Site Name	PROPOSED GOODYEAR WAREHOUSE FACILITY
Site Address	LOT 205, STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207
Site Area	2.23ha
Site Zoning	INDUSTRIAL (I1)
Site Owner	FRASER'S PROPERTY
Site Contact	21555 1111

Site Name	PROPOSED GOODYEAR WAREHOUSE FACILITY
Site Address	LOT 205, STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207
Site Area	2.23ha
Site Zoning	INDUSTRIAL (I1)
Site Owner	FRASER'S PROPERTY
Site Contact	21555 1111

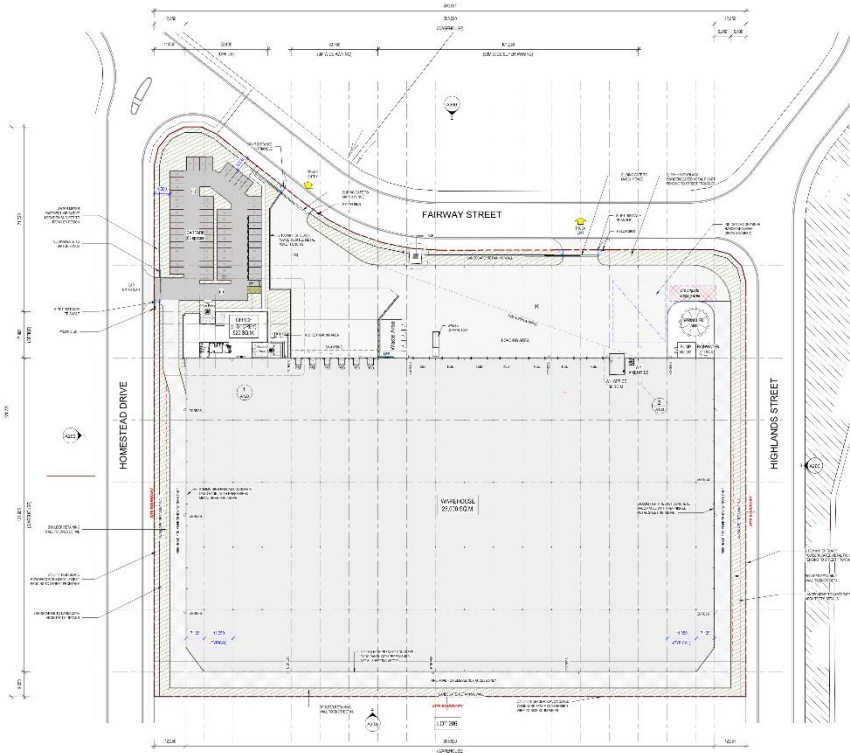
Site Name	PROPOSED GOODYEAR WAREHOUSE FACILITY
Site Address	LOT 205, STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207
Site Area	2.23ha
Site Zoning	INDUSTRIAL (I1)
Site Owner	FRASER'S PROPERTY
Site Contact	21555 1111

Site Name	PROPOSED GOODYEAR WAREHOUSE FACILITY
Site Address	LOT 205, STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207
Site Area	2.23ha
Site Zoning	INDUSTRIAL (I1)
Site Owner	FRASER'S PROPERTY
Site Contact	21555 1111



DEVELOPMENT APPLICATION

211011-DA-A000-P2



1 Site & Facilities Floor Plan



PROPOSED GOODYEAR WAREHOUSE FACILITY

Site Name	PROPOSED GOODYEAR WAREHOUSE FACILITY
Site Address	LOT 205, STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207
Site Area	2.23ha
Site Zoning	INDUSTRIAL (I1)
Site Owner	FRASER'S PROPERTY
Site Contact	21555 1111

Site Name	PROPOSED GOODYEAR WAREHOUSE FACILITY
Site Address	LOT 205, STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207
Site Area	2.23ha
Site Zoning	INDUSTRIAL (I1)
Site Owner	FRASER'S PROPERTY
Site Contact	21555 1111

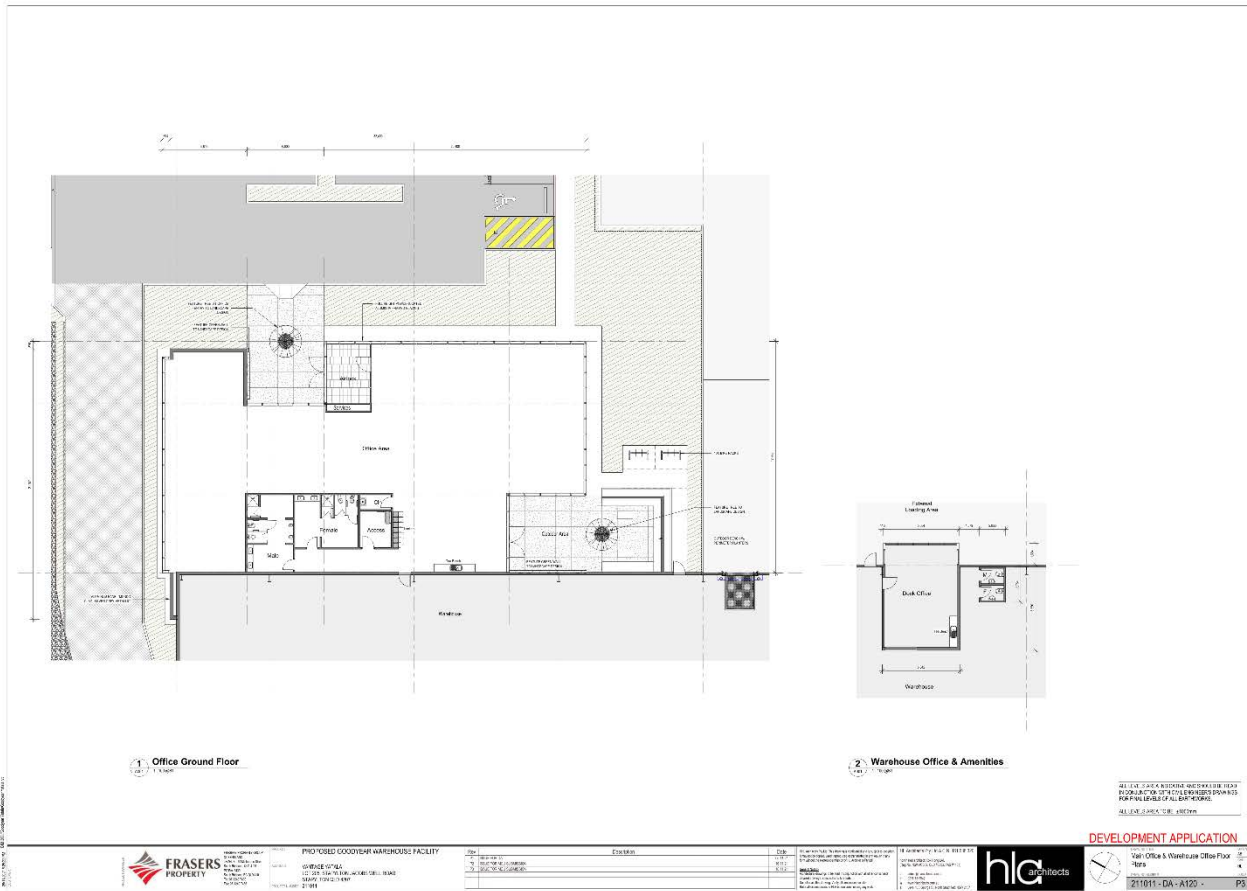
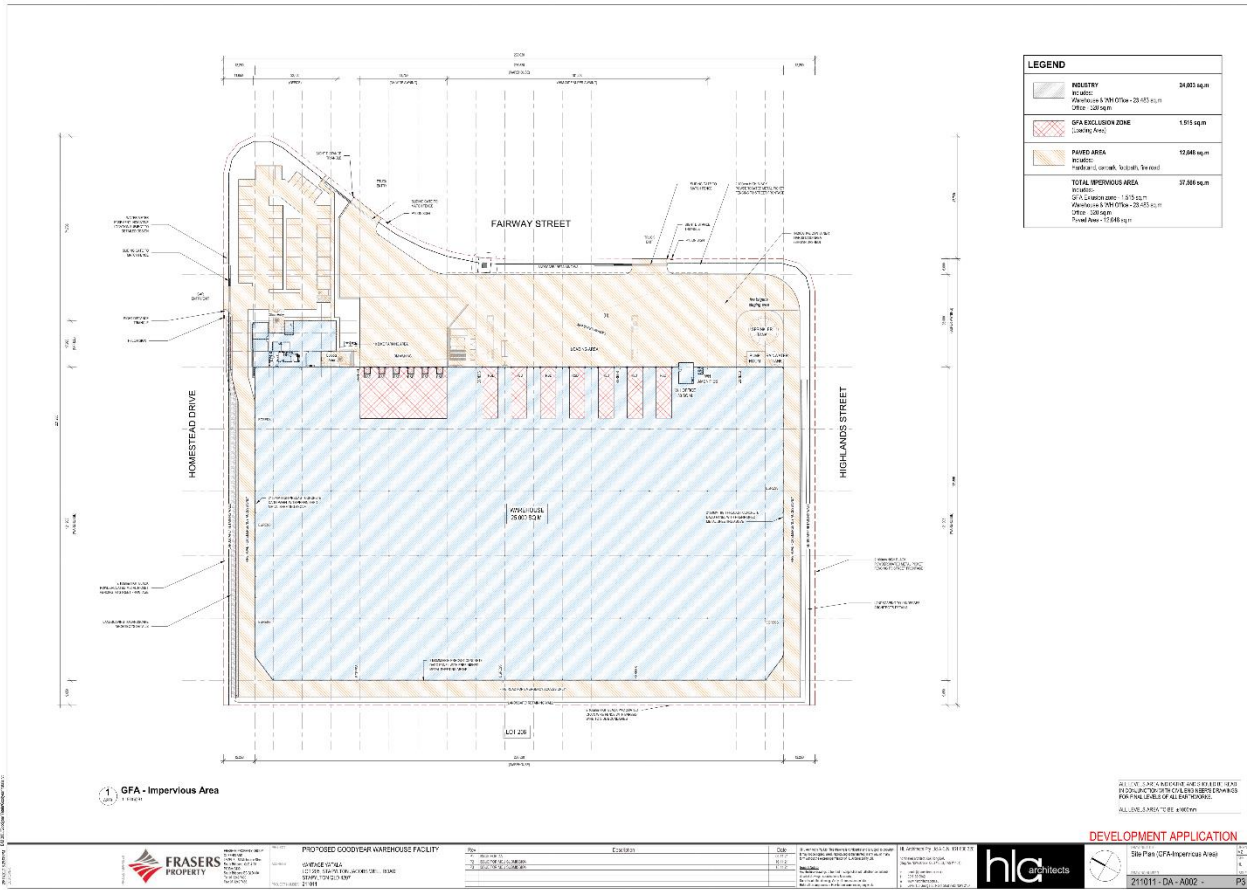
Site Name	PROPOSED GOODYEAR WAREHOUSE FACILITY
Site Address	LOT 205, STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207
Site Area	2.23ha
Site Zoning	INDUSTRIAL (I1)
Site Owner	FRASER'S PROPERTY
Site Contact	21555 1111

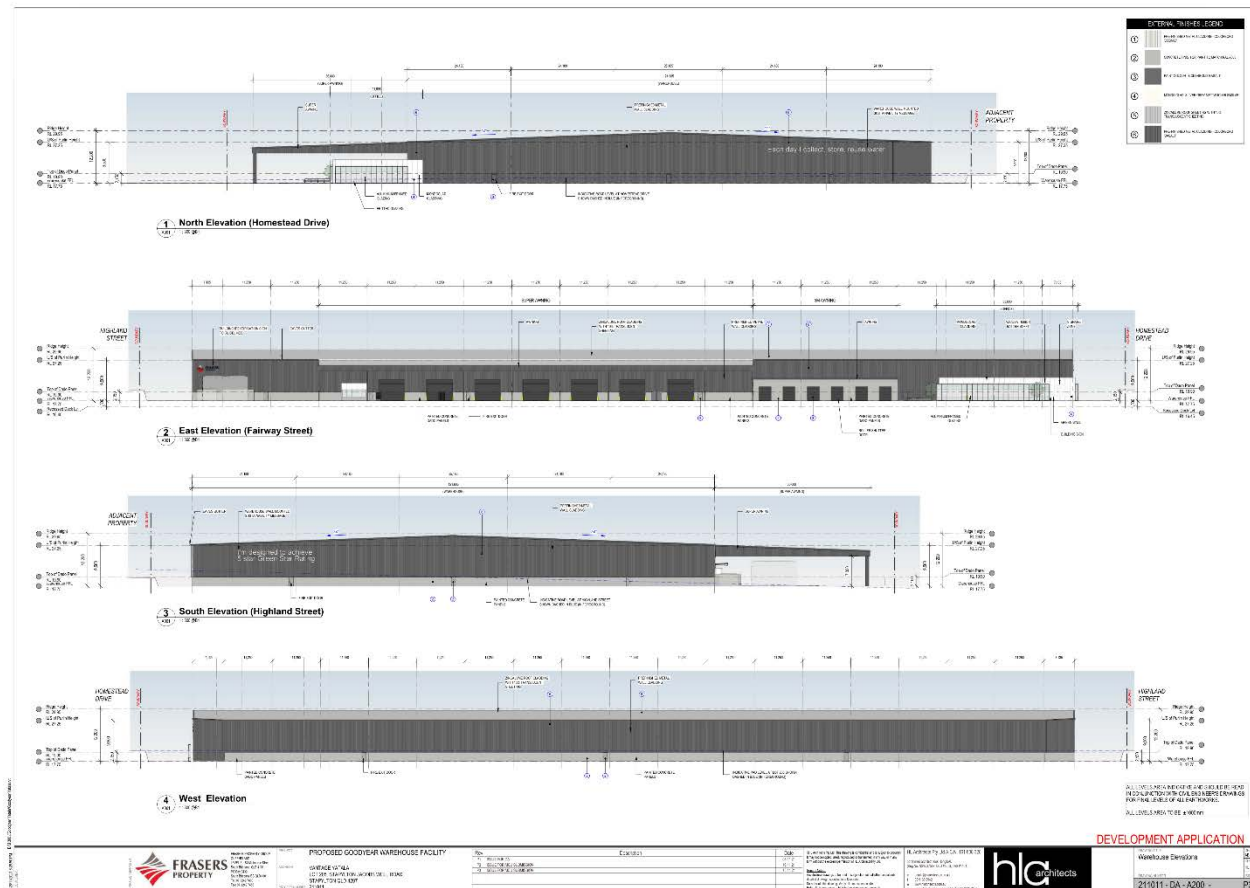
Site Name	PROPOSED GOODYEAR WAREHOUSE FACILITY
Site Address	LOT 205, STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207
Site Area	2.23ha
Site Zoning	INDUSTRIAL (I1)
Site Owner	FRASER'S PROPERTY
Site Contact	21555 1111



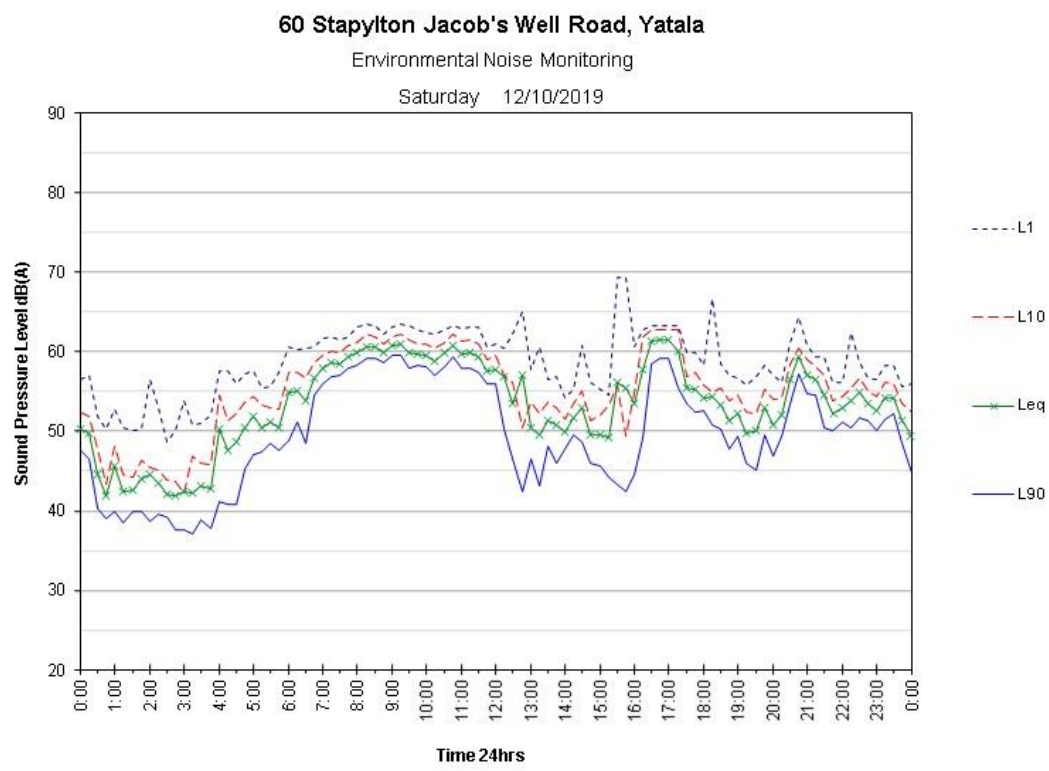
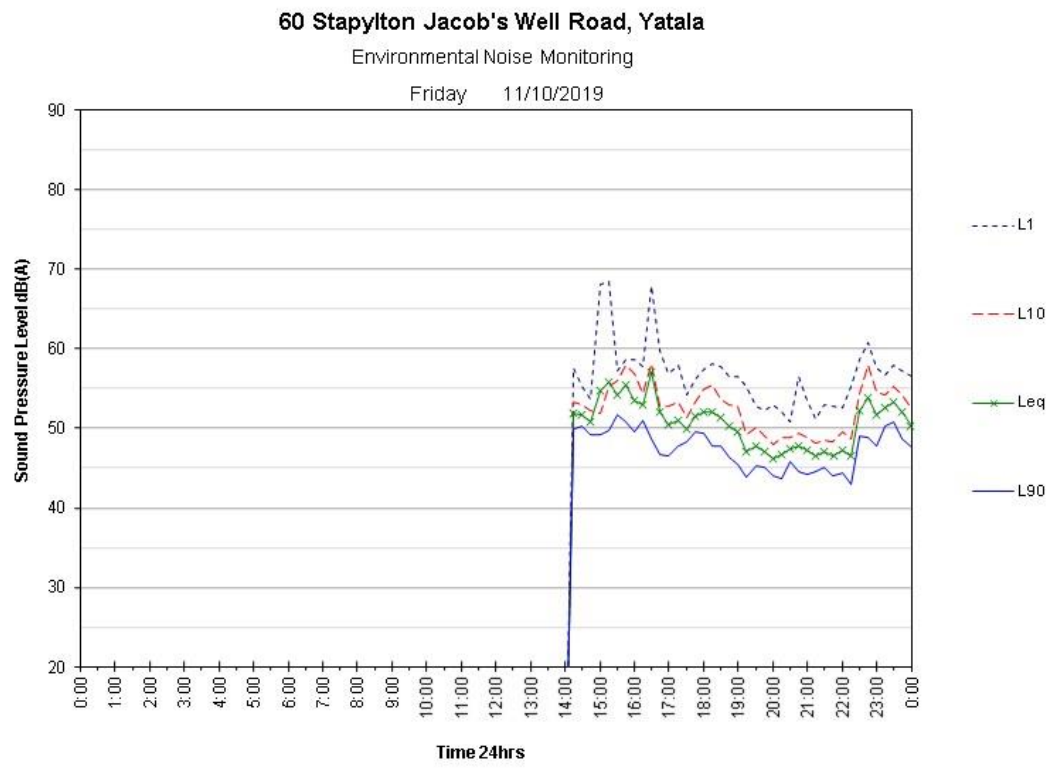
DEVELOPMENT APPLICATION

211011-DA-A001-P4





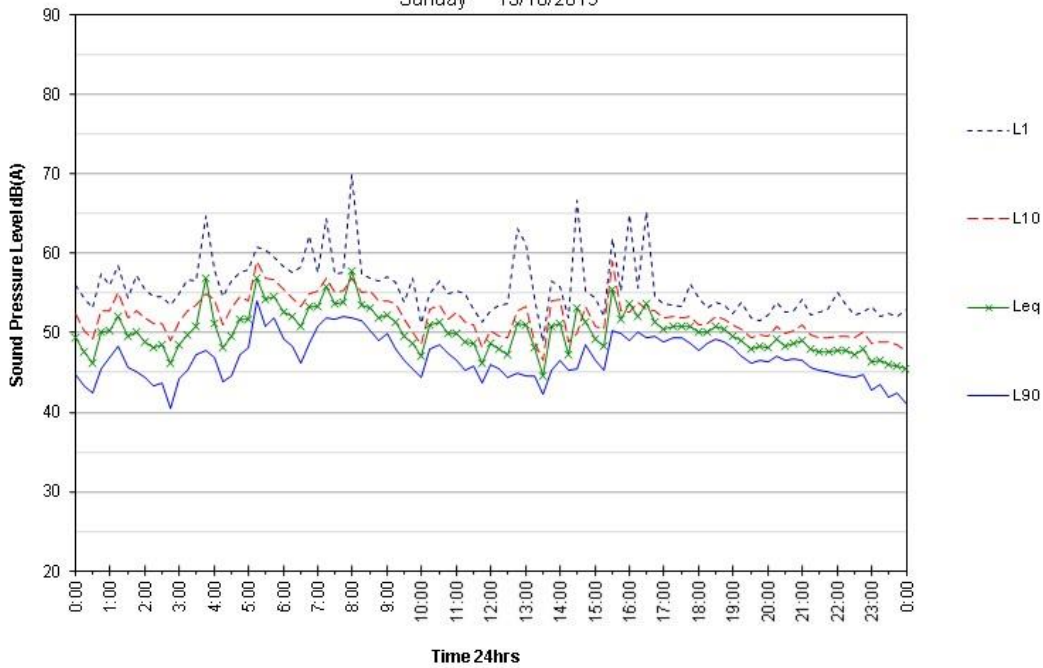
10.2 Noise Monitoring Charts



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

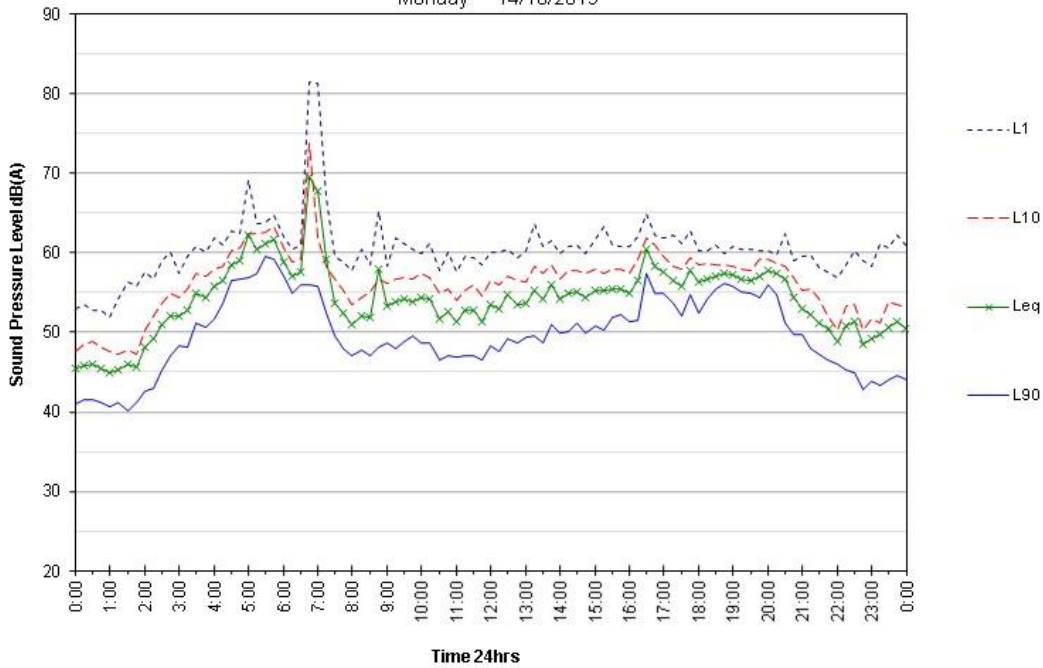
Sunday 13/10/2019



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

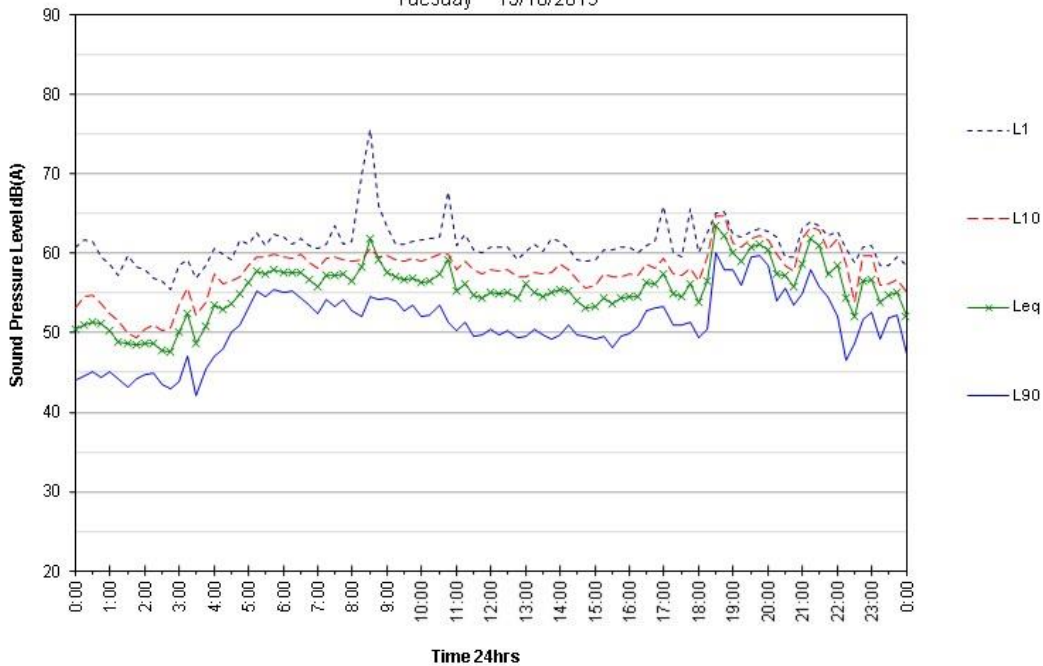
Monday 14/10/2019



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

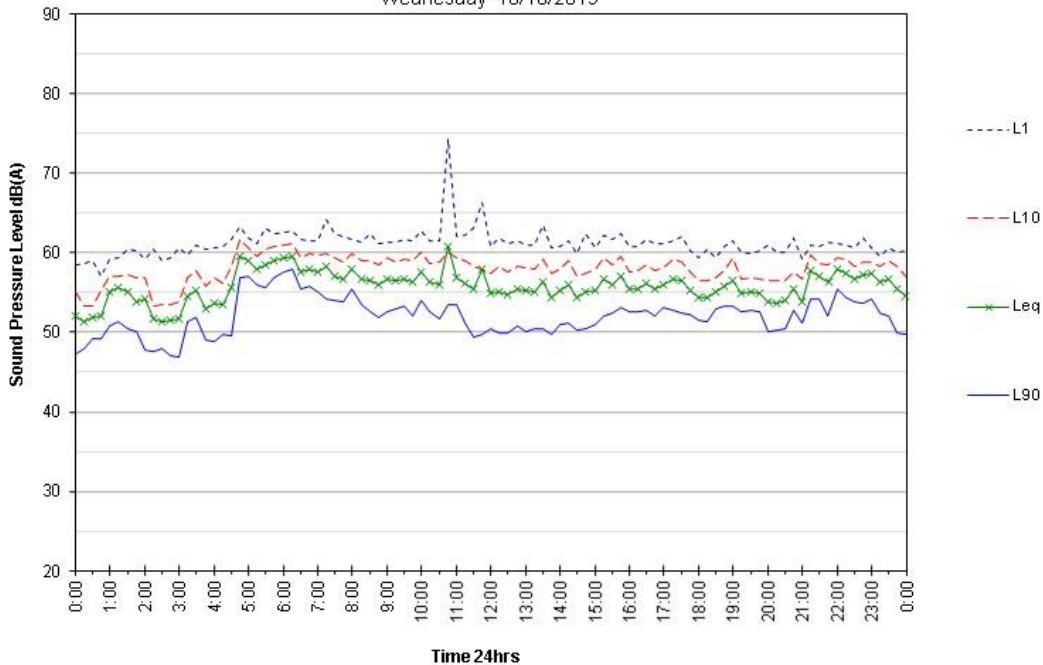
Tuesday 15/10/2019



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

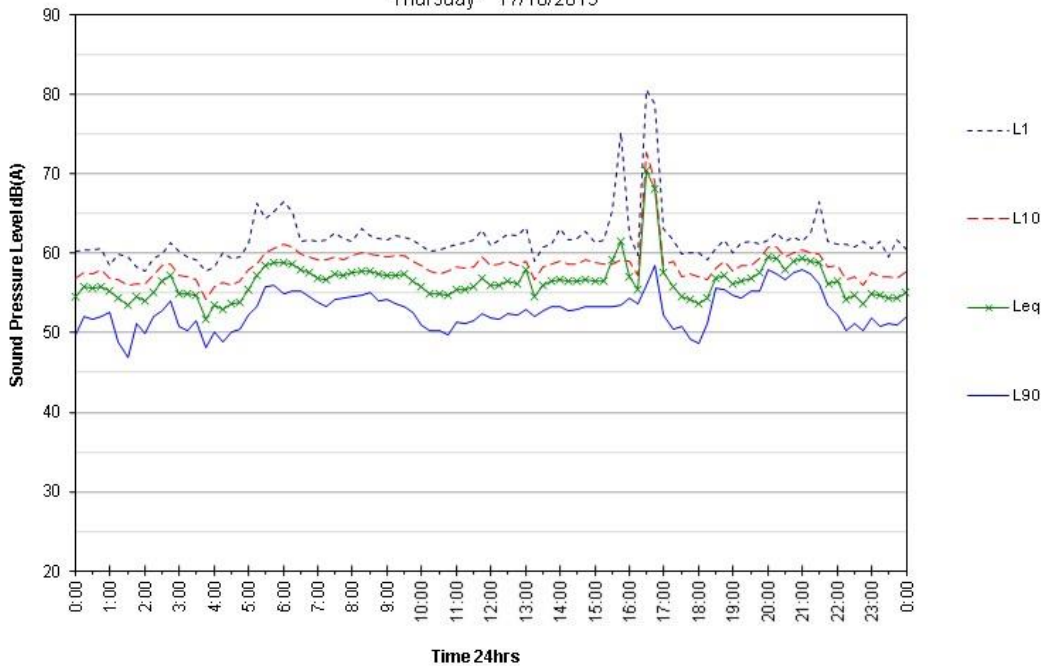
Wednesday 16/10/2019



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

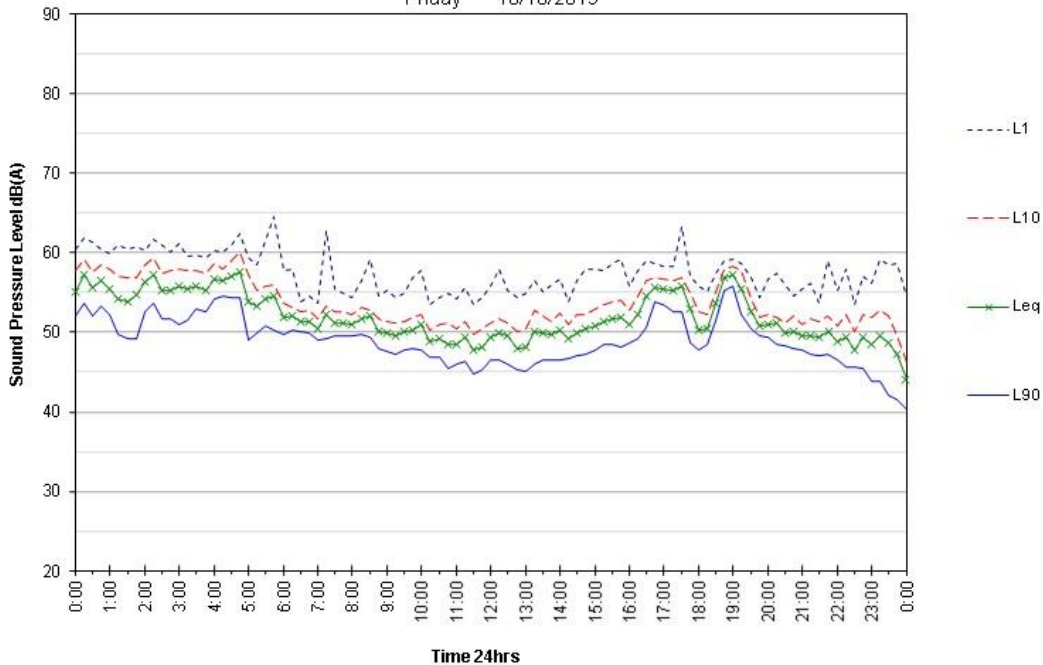
Thursday 17/10/2019



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

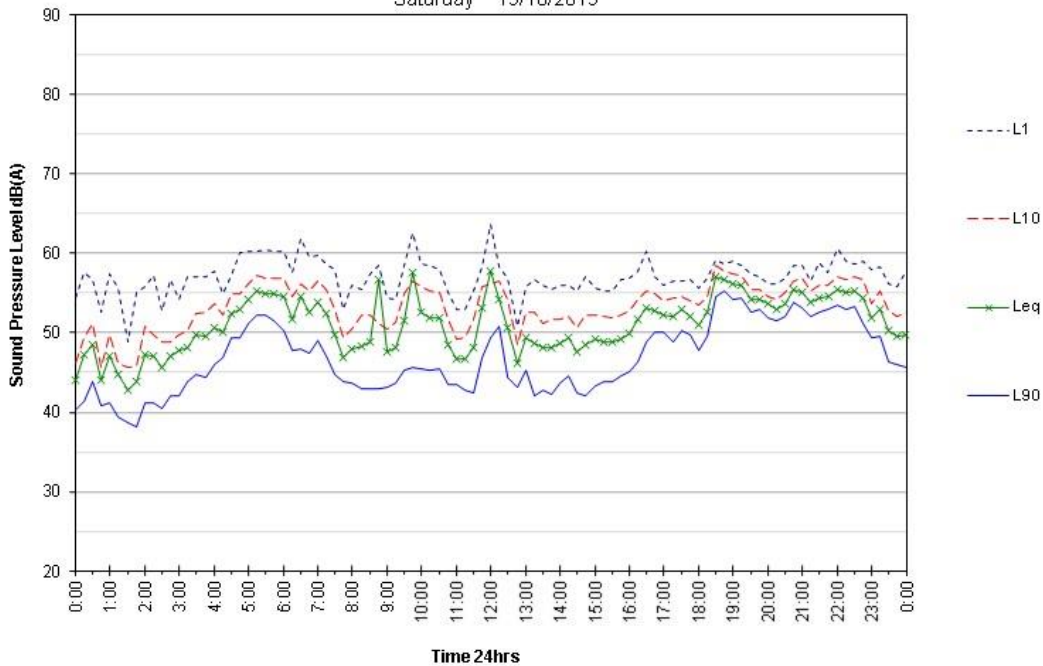
Friday 18/10/2019



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

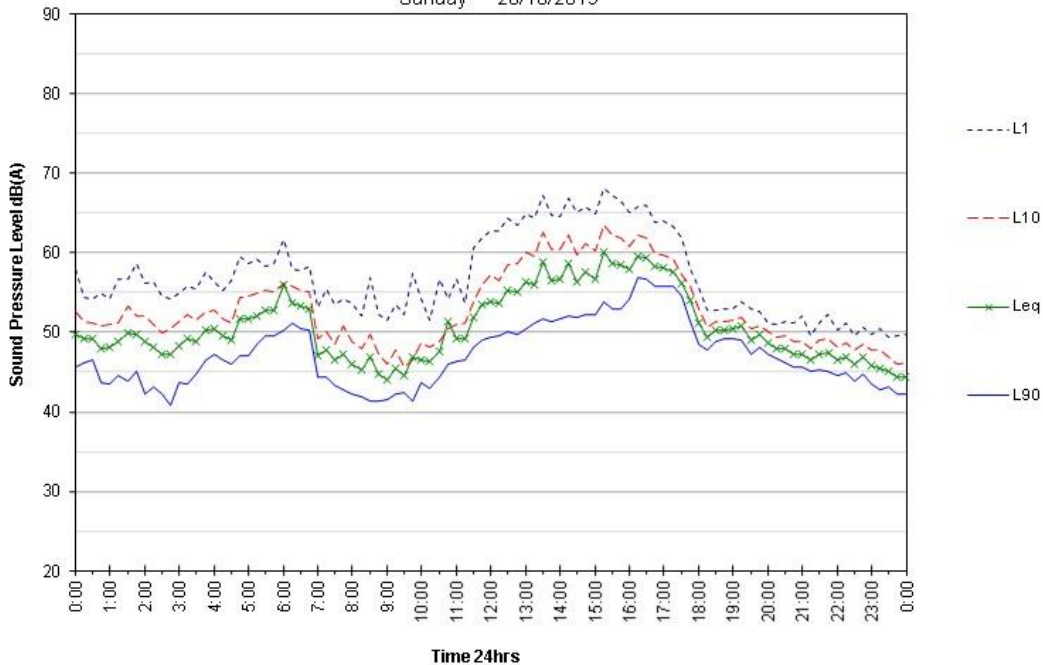
Saturday 19/10/2019



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

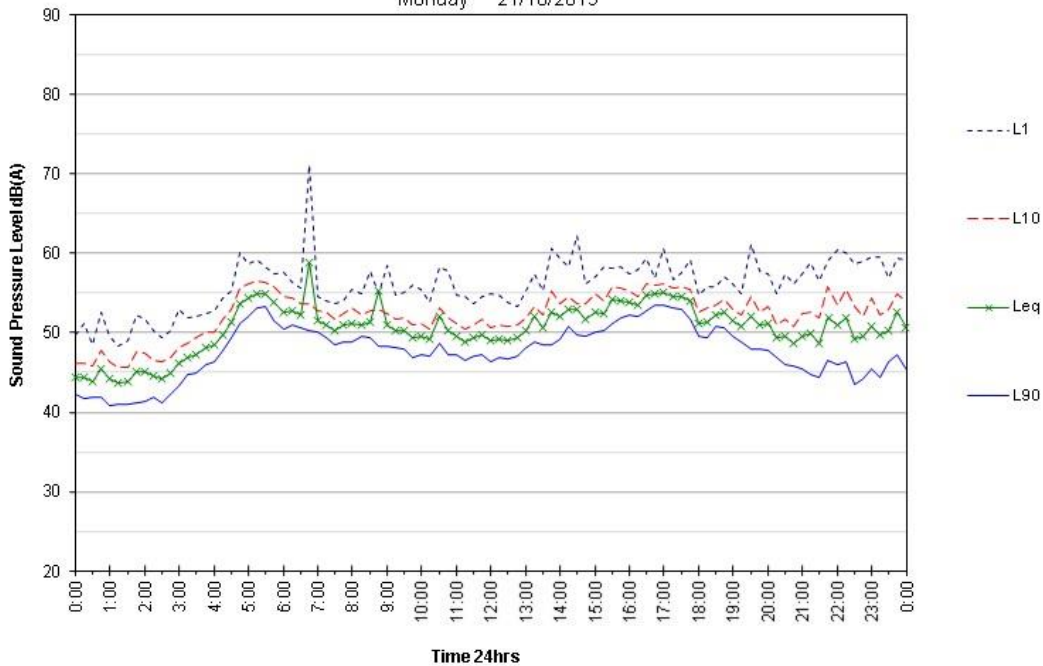
Sunday 20/10/2019



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

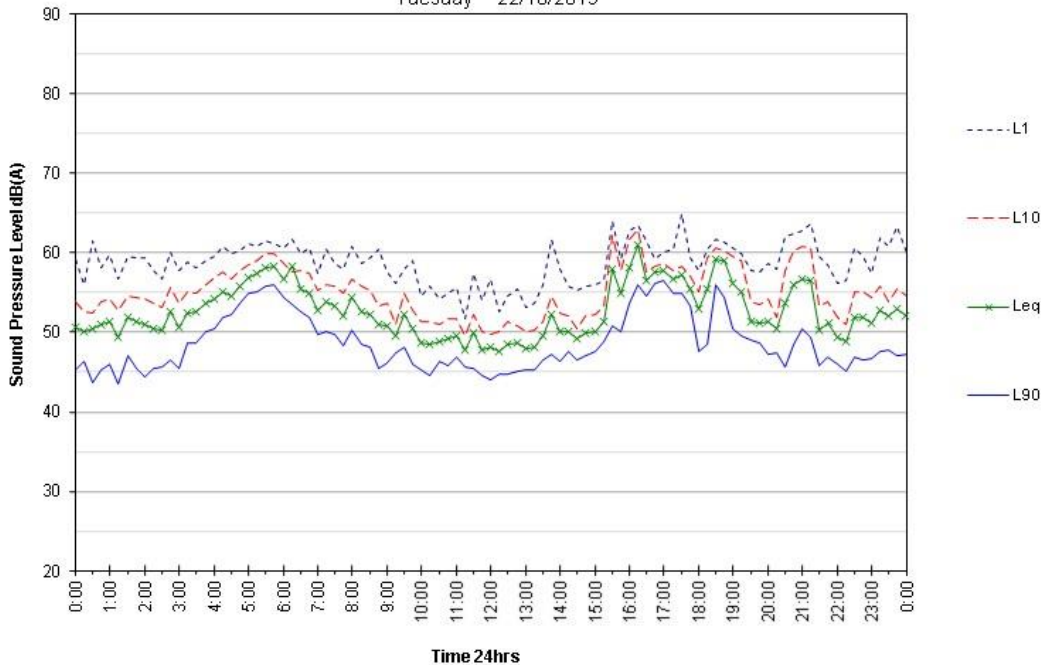
Monday 21/10/2019



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

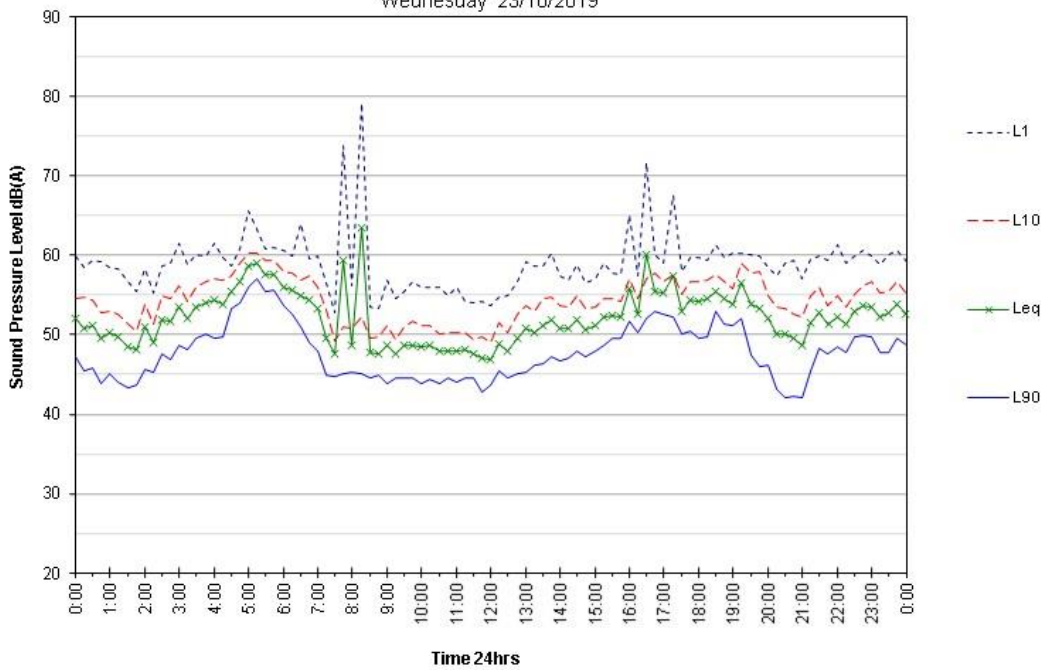
Tuesday 22/10/2019



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

Wednesday 23/10/2019



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

Thursday 24/10/2019

