STANBURY
TRAFFIC PLANNING
TRAFFIC, PARKING & TRANSPORT CONSULTANTS

TRAFFIC & PARKING IMPACT ASSESSMENT

PROPOSED REZONING AND VEHICLE REPAIR WORKSHOP
3 EMERALD HILLS BOULEVARD, LEPPINGTON

PREPARED FOR MACARTHUR DEVELOPMENTS
OUR REF: 23-034-02

MAY 2023

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1. INTRODUCTION

1.1 Proposed Development & Scope of Assessment

Stanbury Traffic Planning has been commissioned by Macarthur Developments to prepare a Transport Impact Assessment with respect to a Planning Proposal to amend Schedule 1 Additional Permitted Uses within the Camden Local Environmental Plan 2010 to allow development for the purposes of a Vehicle Repair Facility at 3 Emerald Hills Boulevard in Leppington.

To the south of the proposed vehicle repair workshop is a proposed car wash which does not form part of this traffic and parking assessment.

This aim of this assessment is to investigate and report upon the potential traffic and parking consequences of the rezoning application and to recommend appropriate ameliorative measures where required. This report provides the following scope of assessment:

- Section 1 provides a summary of the site location, details, existing and surrounding land-uses;

- Section 2 describes the existing and planned surrounding road network including road layout, functional order and intersection control arrangements, public transport provision and pedestrian and cycle infrastructure;

- Section 3 describes the proposed development;

- Section 4 assesses the adequacy of the proposed site access arrangements, parking provision, internal circulation and servicing arrangements with reference to relevant Council, TfNSW and Australian Standard specifications; and

- Section 5 estimates the projected traffic generating ability of the proposed development and assesses the ability or otherwise of the surrounding road network to be capable of accommodating the altered demand in a safe and efficient manner.

The report has been prepared pursuant to State Environmental Planning Policy (Transport and Infrastructure) 2021. Vehicular Access is not sought via a classified road and the Proposal is not of sufficient scale to be referred to TfNSW under this Instrument.

1.2 Reference Documents

Reference is made to the following documents throughout this report:

- Camden LEP 2010 (CLEP 2010);
- Camden Development Control Plan 2019 (CDCP 2019);
- Camden Development Control Plan 2019 Schedule 8 – Emerald Hills (CDCP Schedule 8);
- Australian Standard for Parking Facilities Part 1: Off-Street Car Parking (AS2890.1:2004);
- Australian Standard for Parking Facilities Part 2: Off-Street Commercial Vehicle Facilities (AS2890.2:2018);
- Australian Standard for Parking Facilities Part 3: Bicycle Parking (AS2890.3:2015);
- Australian Standard for Parking Facilities Part 6: Off-Street Parking for People with Disabilities (AS2890.6:2022);
- NSW Government's Planning Guidelines for Walking and Cycling 2004;
- TfNSW's Guide to Traffic Generating Developments (GTTGD);
- NSW Government's Sydney Metropolitan Strategy document City of Cities: A Plan for Sydney's Future;
- AECOM's Leppington Precinct Transport and Access Strategy dated 10 March 2014;
- Camden Council's Camden Growth Areas Contributions Plan - Amendment 1 - Technical Document (final); and
- NSW Government's Camden Council Growth Centre Development Control Plan.

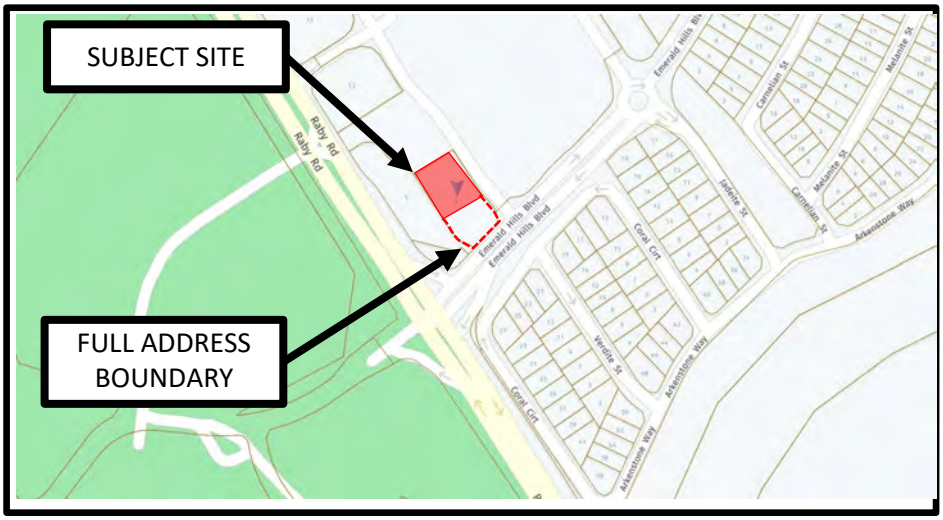
Architectural plans have been prepared by Bellevue Architects, reduced copies of a selection of which are attached as **Appendix 1**.

1.3 Site Details

1.3.1 Site Location

No. 3 Emerald Hills Boulevard, Leppington is situated on the northern side of Emerald Hills Boulevard. The site location is illustrated within a local and aerial context by **Figure 1** and **Figure 2**, respectively.

FIGURE 1
LOCATION OF NO. 3 EMERALD HILLS BOULEVARD, LEPPINGTON WITHIN A LOCAL CONTEXT



Source: Nearmap.com (accessed 5/04/23)

FIGURE 2
LOCATION OF 3 EMERALD HILLS BOULEVARD, LEPPINGTON WITHIN AN AERIAL CONTEXT

Source: Nearmap (image date Thu Feb 16 2023 12:51 PM)

1.3.2 Site Description

The allotment subject to this assessment provides an address of 3 Emerald Hills Boulevard in Leppington. The full address boundary, forms a rectangular parcel of land, providing approximate frontages of 25m to Emerald Hills Boulevard and 68m to the Emerald Hills Shopping Centre Access Road. The total allotment area is approximately 2,619m^2.

As shown in **Figure 1**, the subject Proposal addresses the northern half of the property, which has an area of approximately 1,315m^2. The southern half of the property, which has an area of approximately 1,304m^2, does not form part of this application.

1.3.3 Existing Site Use

No. 3 Emerald Hills Boulevard, Leppington is currently vacant.

The existing site is shown in **Figure 3** and vehicular access to the subject site is currently not provided.

FIGURE 3
3 EMERALD HILLS BOULEVARD, LEPPINGTON

Source: Google Street View (Feb 2021) – Accessed 5/4/23

1.3.4 Approved Site Use

Development consent (DA/2016/368/1) was issued by Camden Council on the 16/12/2016 for construction of new local centre building comprising commercial premises, carpark, internal access roads, landscaping and business identification signage.

The current application relates to the northern half of Lot 96 of DP1203161 of the abovementioned approved subdivision which is currently zoned E1, published 24/2/2023.

Whilst the specific use of this lot was unknown at the time of the subdivision approval, CLEP 2010 specifies that land zoned E1 (Local Centre) provides an aim of accommodating a range of residential, retail, business and community uses that serve the needs of the people who live in, visit and work in the local area.

1.3.5 Surrounding Uses

No. 3 Emerald Hills Boulevard, Leppington is to the south of the Emerald Hills Shopping Village and further to the north are low density residential properties.

Low density residential properties are also to the east of the subject site with the Lakeside Golf Club to the south and the west of the subject site.

Notwithstanding the above, the surrounding land is subject to redevelopment in the immediate term. As shown in **Figure 2**, pockets of urban residential development have already been completed.

2. SURROUNDING ROAD NETWORK

2.1 Existing Road Construction & Function

The following provides a brief description of the surrounding road network:

- **Raby Road**, within the immediate vicinity of the subject site, currently performs a sub-arterial road function connecting abutting properties and intersecting lower order access streets with Camden Valley Way to the north and Campbelltown Road to the south. Raby Road is an unclassified regional road under the care, control and management of Camden Council in the north-west and Campbelltown City Council in the south-east.

  The section of Raby Road adjacent to the subject site currently provides two through lanes in each direction with bus jump-start lanes at the intersection with Emerald Hills Boulevard.

  Traffic flow within Raby Road adjacent to the subject site is governed by a sign posted speed limit of 80km/h.

- **Emerald Hills Boulevard** currently primarily performs a local collector road function between Raby Road in the south and St Andrews Road in the north, providing an access function to the abutting properties and access to other lower order local streets.

  The section of Raby Road adjacent to the subject site currently provides one through lane of traffic in each direction with no parking permitted.

  Traffic flow within Emerald Hills Boulevard adjacent to the subject site is governed by a sign posted speed limit of 50km/h.

- **Emerald Hills Shopping Centre Access Road** currently performs a typical local street function between Emerald Hills Boulevard in the south and the Emerald Hills Shopping Village.

  Emerald Hills Shopping Centre Access Road primarily provides a 7.5m wide pavement between kerb and gutter, providing one through lane of traffic in each direction.

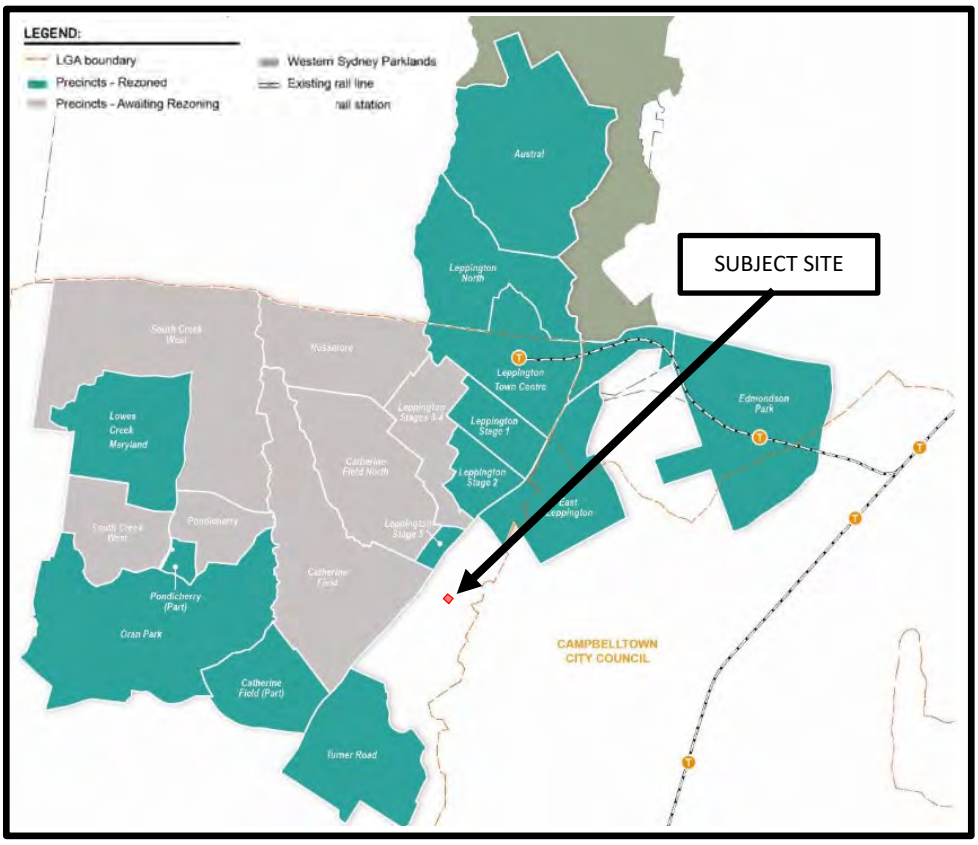
  Traffic flow within Emerald Hills Boulevard Access Road is governed by a sign posted speed limit of 40km/h.

2.2 Precinct Planning

Long-term planning for development within Sydney is guided by the NSW Government's Sydney Metropolitan Strategy document *City of Cities: A Plan for Sydney's Future*. This document indicates that the South West Growth Centre will play a significant role in managing growth in Metropolitan Sydney. While not

currently part of the South West Growth Centre the subject site is close to the to the SWGC as shown in **Figure 4**.

FIGURE 4
SITE LOCATION WITHIN THE CONTEXT OF THE SOUTH WEST GROWTH CENTRE



Source: https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/Plans-for-your-area/Priority-growth-areas/Guide-to-the-South-West-Growth-Area-202212.pdf?la=en - Accessed 7/4/23

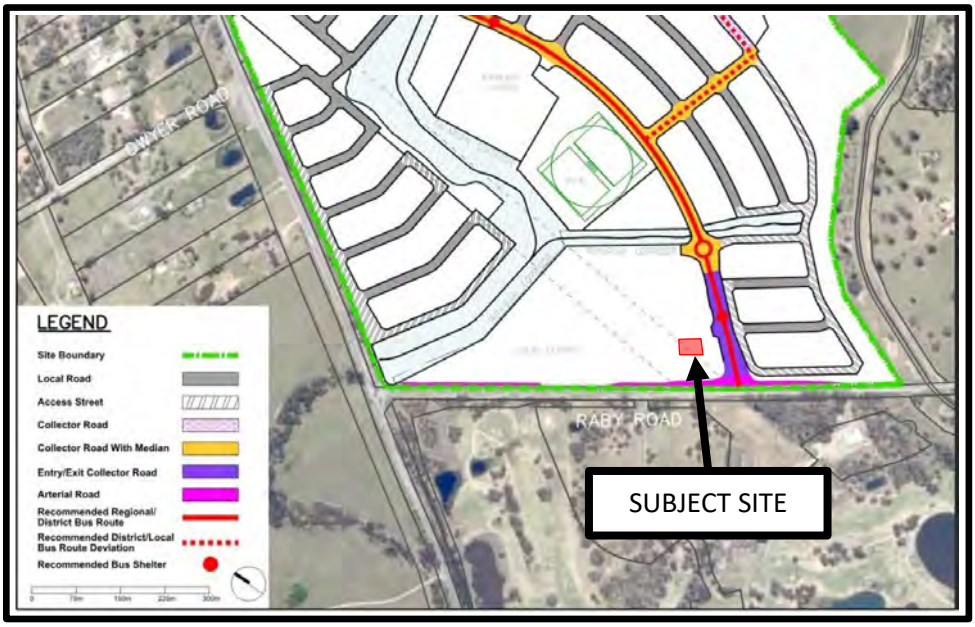
The precinct planning process in the area surrounding the subject site was undertaken as part of the preparation of CDCP Schedule 8 which references a range of technical documents including a Traffic Assessment undertaken by Cardno in May 2013.

The Cardno Traffic Assessment identified in the DCP is expected to have reviewed the transport impacts of the precinct and within the precinct, recommending infrastructure upgrades to maximise the safety and efficiency of the future transportation system.

The infrastructure upgrades recommended within the Cardno Transport Assessment are expected to have been incorporated within CDCP Schedule 8. Relevant figures indicating transport infrastructure have been reproduced and are shown in **Figure 5** to **Figure 7.**

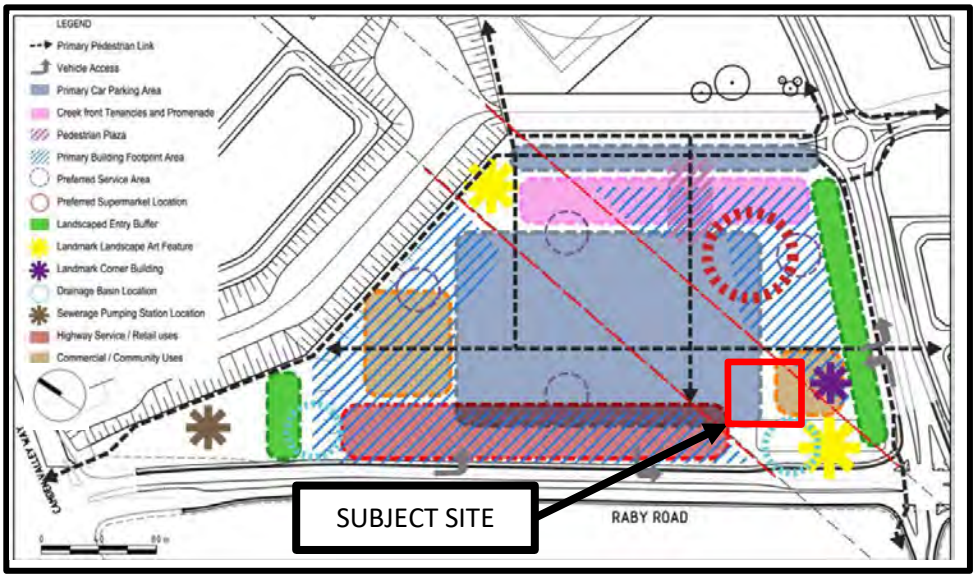
FIGURE 5
SITE LOCATION WITHIN THE CONTEXT OF THE SOUTH WEST GROWTH CENTRE

FIGURE 6
EMERALD HILLS ROAD HIERARCHY AND BUS ROUTE



Source: Figure 8-3: Emerald Hills Road Hierarchy and Bus Route

FIGURE 7
SITE PLANNING PRINCIPLES FOR EMERALD HILLS CENTRE



Source: Figure 8-16: Site Planning Principles for Emerald Hills Centre

Figure 5 to **Figure 7** indicate the following is proposed within the immediate vicinity of the subject site:

- The subject site sits within a Neighbourhood Centre;
- Emerald Hills Boulevard in the vicinity of the subject site is a collector road; and
- A proposed regional bus route runs along Emerald Hills Boulevard in the vicinity of the subject site.

Based on Nearmap aerial imagery, the signalised intersection of Raby Road / Emerald Hills Boulevard construction appeared to be completed in late 2016 and this signalised intersection is intended to provide access to the Precinct.

3. PROPOSED DEVELOPMENT

3.1 Built Form

The Development Application seeks consent for the construction of a vehicle repair centre with five workshop bays.

The vehicle repair centre is proposed to be contained within a single storey building with a mezzanine for storage of tyres situated in the north-eastern portion of the site. An at-grade car parking area is proposed generally around the permitter of the subject site.

Vehicular access to the at-grade parking area containing 26 car spaces is provided via separated ingress and egress driveways situated in the north-eastern and south-eastern corners of the site, respectively, connecting with the adjacent Emerald Hills Shopping Centre Access Road.

If successful with this rezoning application, the proposed design of the site would be refined throughout the Development Application process.

3.2 Proposed Operation

The service centre is proposed to have the following:

- Five workshop bays;
- Reception and amenities;
- Staff lunch room;
- Staff toilet and change room;
- Waste room;
- Ground and mezzanine storage areas; and
- An ancillary 55m^2 food and beverage area with outdoor seating.

If successful with the rezoning application, the proposed vehicle repair centre the hours of operation would be determined through the Development Application process.

4. SITE ACCESS AND INTERNAL CIRCULATION

4.1 Vehicular Access

The development is to be accessed via separate ingress and egress driveways, both approximately 6m wide connecting with the adjoining Emerald Hills Shopping Centre Access Road.

AS2890.1:2004 provides driveway design specifications based on the proposed primary land use, the functional order of the access road and the number of spaces the driveway is to serve. Tables 3.1 and 3.2 of AS2890.1:2004 specify that, at minimum, a Category 2 type driveway is required, providing a combined ingress / egress driveway width of between 6m and 9m based on the local (non-arterial) functional order of the frontage road, the proposed land use and the passenger vehicle parking provision within the parking area of between 25 and 100 car parking spaces.

Further, AS2890.2:2018 specifies a minimum driveway width requirement of 6m where vehicles up to and including SRVs are to be accommodated however a reduced distance can be considered subject to a swept path assessment.

The two proposed vehicular access driveways exceed the category required within AS2890.1 and accordingly are considered satisfactory.

Swept path plans have been prepared in order to demonstrate the ability of passenger vehicles and MRVs to enter and exit the site, copies of which are included as **Appendix 2**.

The safety and efficiency of access / egress movements are also proposed to be assisted by the provision of a relatively level grade within entire site boundary. It is further noted that sight distance between exiting vehicles and the internal frontage access road is not proposed to be impeded by any obstructions along the site frontage to the east of the driveway, suitably according with the requirements of Figure 3.3 of AS2890.1:2004 and Figure 3.4 of AS2890.2:2018.

Further to the above, Clause S8.3 Control 4 of the CDCP Schedule 8 states the following:

"Vehicle access and/or car parking facilities will not be approved if within 30 metres of a Transmission Line structure without adequate precautions provided to protect the structure from any accidental damage."

It is considered that the requirements for protection can reasonably be imposed by Council as conditions of consent.

4.2 Parking Provision

4.2.1 Passenger Vehicle Parking

The Vehicle Repair Facility is proposed to provide an off-street parking area containing a total of 26 parking spaces, including one accessible space.

CDCP 2019 provides the following locally specific car parking requirements for Vehicle Repair Stations:

4 car parking spaces per service work bay for up to 2 bays and
6 car parking spaces per service bay for each additional bay.

Application of the above rates to the five service work bays indicates that the development should provide a total of 26 off-street passenger vehicle parking spaces.

The proposed food and beverage facility is expected to operate as ancillary in nature and is not expected to draw customers outside those already using the facility to service their car. In this regard, no car parking spaces are expected to be required.

The proposed parking provision of 26 passenger vehicle parking spaces is considered to meet the requirements of the CDCP 2019 and if successful with this rezoning application, the on-site car parking would be further assessed as part of any future Development Application.

4.2.2 Bicycle Parking Provision

CDCP 2019 does not provide parking rates required for bicycle parking for developments involving Vehicle Repair Facilities.

The proposed development does not provide on-site bicycle parking and therefore complies with the parking rates provided within CDCP 2019.

4.2.3 Motorcycle Parking Provision

CDCP 2019 does not provide parking rates required for motorcycle parking for developments involving Vehicle Repair Facilities.

The proposed development does not provide on-site motorcycle parking and therefore complies with the parking rates provided within CDCP 2019.

4.3 Internal Circulation and Manoeuvrability

4.3.1 Passenger Vehicles

Connectivity between the access driveways and the passenger vehicle parking areas is proposed via an internal roadway running in a crescent shape from south-east to north-east. The passenger vehicle parking area has been designed to accord with the requirements of AS2890.1:2004 and AS2890.6:2022, providing the following minimum characteristics:

- Standard staff or visitor parking space width = 2.6m;
- Disabled parking space width = 2.4m (in conjunction with an adjoining shared area width of 2.4m);
- Parking space length = 5.4m;
- One-way roadway = 6.0m; and
- Maximum grade within the property boundary = The site is relatively flat with minimal crossfall.

Safe and efficient internal manoeuvring and parking space accessibility is anticipated to result, taking into consideration the above compliance with the relevant AS2890.1:2004 and AS2890.6:2022 specifications.

4.3.2 Service Vehicles

The proposal will be required to accommodate vehicles up to and including SRVs which will also be required to access the site associated with private contractor refuse collection and deliveries.

Refuse collection and deliveries are proposed to be accommodated within a concrete apron located on the western corner of the building. Refuse is proposed to be stored within the allocated at-grade Waste Enclosure with an external roller door opening to the designated refuse collection location within the concrete apron.

The internal circulation arrangements associated with heavy vehicle servicing has been designed to be compliant with the relevant AS2890.2:2018 specifications, providing the following minimum provisions:

- One-way roadway = 6m;
- Maximum ramp grade = 1:20; and
- Minimum clearance = 4.5m.

In order to demonstrate the internal SRV and refuse collection manoeuvrability throughout the development, this Practice has prepared a number of swept path plans which are included as **Appendix 2**.

The turning paths provided on the plans have been generated using Autoturn software and derived from SRV vehicle specifications contained within AS2890.2:2018 specifications. The swept path plans illustrate that SRVs and ambulances are able to manoeuvre throughout the development in a safe and efficient manner.

5. PROJECTED TRANSPORT CONDITIONS

5.1 Traffic Generation

5.1.1 Traffic Generation Rates

Traffic generation rates for various land-uses have been established through extensive surveys undertaken throughout NSW and published within TfNSW's Guide to Traffic Generating Developments (GTTGD). There are no traffic generation rates provided within this document for Vehicle Repair Facilities.

5.1.1.1 Standard Traffic Generation Rates

The closest applicable use identified within the GTTGD is as follows:

Car Tyre Retail Outlets
Evening peak hour vehicle trips = 1 per 100m^2 site area

Application of the above traffic generation rates to the site area of 1,315m^2 yields a peak hour traffic generation of 13.15 (adopt 14) trips for the weekday evening peak hour.

5.1.1.2 Surveys of a Similar Use

This Practice commissioned Roar Data Pty Ltd to undertake surveys at an existing MyCar Vehicle Repair Facility at 214 Pitt Street in Merrylands. The site was surveyed on Monday 27/3/2023 from 7:00am to 9:00am and from 4:00pm to 6:00pm. MyCar in Merrylands has 5 vehicle service bays and no ancillary food and beverage area. The peak hour survey results are summarised in **Table 1** with full results provided in **Appendix 3**.

TABLE 1 LEVEL OF SERVICE CRITERIA FOR INTERSECTIONS		
	AM PEAK HOUR	**PM PEAK HOUR**
IN	7	3
OUT	2	12
TOTAL	9	15

Table 1 indicates that the similar site use in Merrylands generated 9 trips during the weekday AM peak hour and 15 trips during the weekday PM peak hour.

5.1.1.3 What could a Standard Use Generate?

The site is currently zoned E1, and according to the CLEP 2010, the following uses are permitted:

"Amusement centres; Boarding houses; Centre-based child care facilities; Commercial premises; Community facilities; Entertainment facilities; Function centres; Home industries; Hotel or motel accommodation; Information and education facilities; Local distribution premises; Medical centres; Oyster aquaculture; Places of public worship; Pond-based aquaculture; Public administration buildings; Recreation facilities (indoor); Respite day care centres; Service stations; Shop top housing; Tank-based aquaculture; Veterinary hospitals"

The list of permitted uses includes some that could be expected to generate a substantially higher amount of traffic during the road network peak hours than envisaged by the proposed.

5.2 Projected Traffic Generation

The proposed Food and Beverage area included as part of this Rezoning Application is expected to operate as an ancillary use on the site. That is, the proposed Food and Beverage floor area is expected to serve the dominant car service facility on-site.

For example, while having their car fixed, a customer they may wait and purchase a coffee or some food. It is not envisaged that the Food and Beverage area would operate as the dominant land use on-site.

Accordingly, based on an estimated weekday PM peak hour traffic generation of 13 to 15 vehicles per hour.

5.3 Traffic Impacts

The proposed car wash facility has been projected to generate up to 15 vehicle movements to and from the subject site. Such an extent of additional traffic, representing one entering and exiting vehicle every four minutes during the weekday PM peak hour is not projected to result in any unreasonable impacts on the overall operation of the subject site or the adjoining public road network for the following reasons:

- Vehicles are able to enter and exit the proposed facility in a forward direction via separate driveways; and

- The consistent vertical and horizontal alignment of the site frontage road facilitates a good level of sight distance between the frontage road and the development access and egress driveways.

Based on an inspection of the site and the analysis undertaken, the proposed rezoning is not expected to result in any measurable impacts on the overall performance or safety of surrounding road network or the requirement for any road network upgrades beyond those already envisaged for the Precinct.

5.3.1 Impacts on Public Transport

The subject site is located within reasonably close proximity to bus services operating along Emerald Hills Boulevard, Raby Road and Camden Valley Way. It is accordingly expected that a portion of the future users / staff will utilise the surrounding public transport infrastructure to access the site and other destinations throughout the Sydney metropolitan area.

The capacity of the existing public transport system is however not envisaged to be measurably affected by any additional demand associated with the development, given its limited scale.

6. CONCLUSION

This report assesses the potential traffic and parking implications associated with a proposed Vehicle Repair Facility at 3 Emerald Hills Boulevard in Leppington. Based on this assessment, the following conclusions are now made:

- The site access arrangements are projected to result in motorists being capable of entering and exiting the subject site in a safe and efficient manner;

- The proposed off-street parking provision is expected to readily be capable of accommodating the expected peak operational parking demands of the development and would be assessed in detail as part of any future Development Application;

- The internal passenger and service vehicle circulation arrangements are envisaged to provide for safe and efficient internal manoeuvring, as shown within **Appendix 2**;

- The proposed development has been projected to generate up to 15 peak hour vehicle trips to and from the subject site, being significantly less than uses which are currently permitted by the existing E1 zoning; and

- The proposed rezoning is not expected to result in any measurable impacts on the overall performance or safety of surrounding road network or the requirement for any road network upgrades beyond those already envisaged for the Precinct.

Having regard to the abovementioned conclusions, there are no parking or traffic related issues that should prevent approval of the subject rezoning application.

APPENDIX 1

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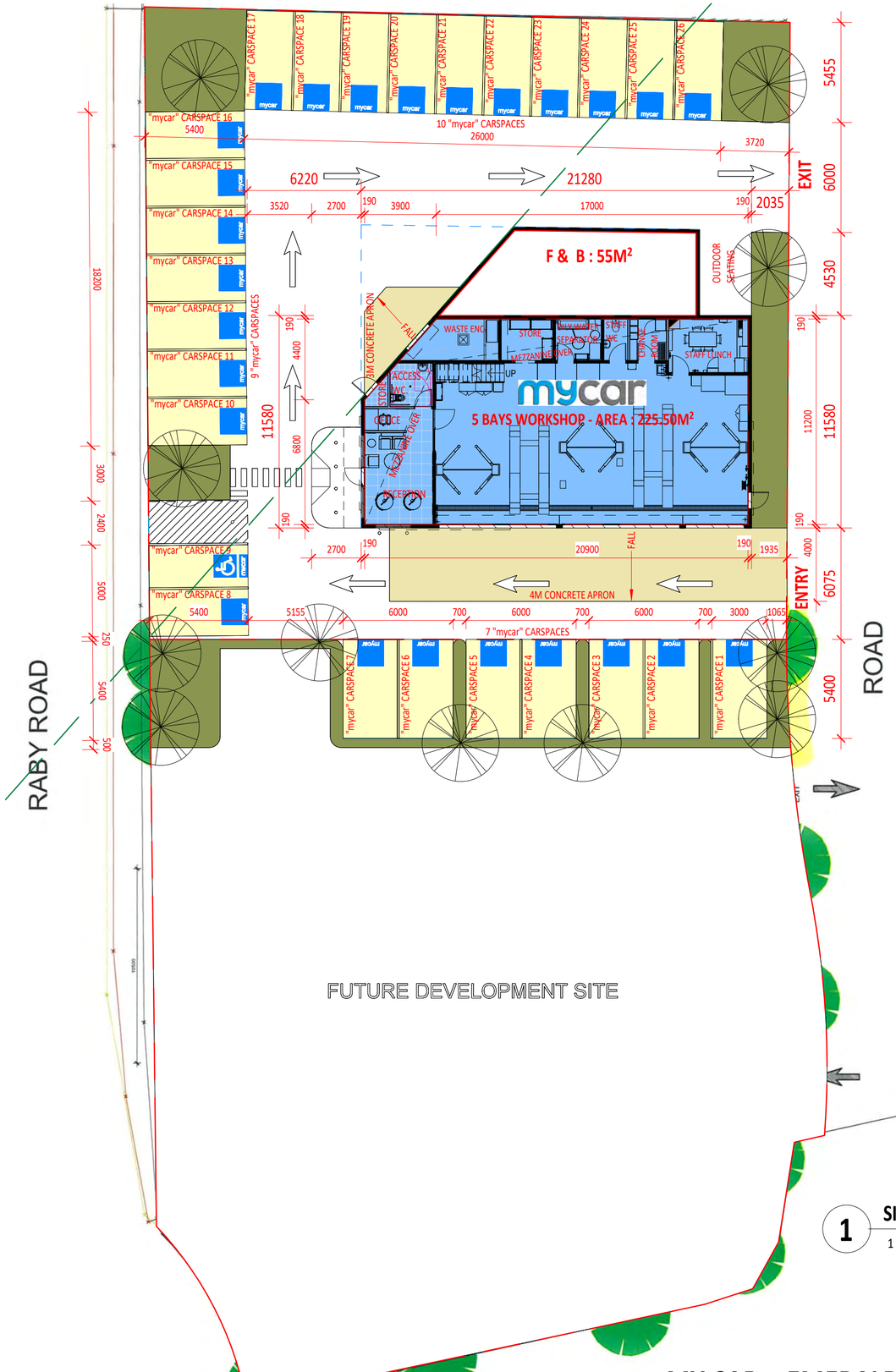

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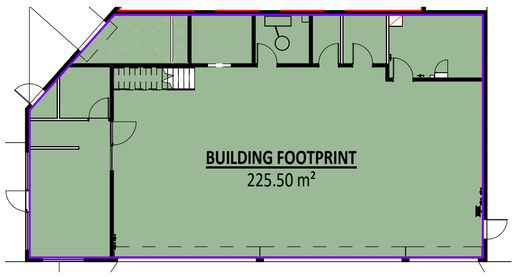
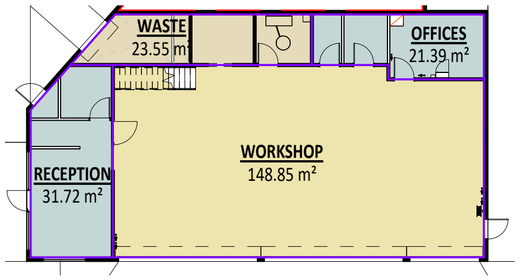
1 : 200



2 **BUILDING FOOTPRINT**
1 : 200

BUILDING FOOPRINT

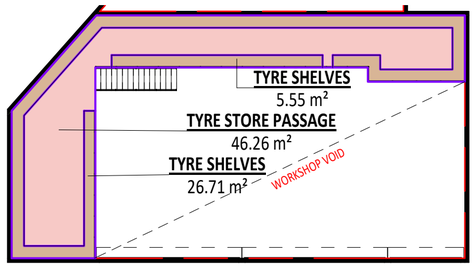
BUILDING FOOTPRINT



3 **GROUND AREAS**
1 : 200

AREA LEGEND

- OFFICES
- RECEPTION
- TYRE SHELVES
- TYRE STORE PASSAGE
- WASTE
- WORKSHOP



4 **MEZZANINE AREAS**
1 : 200

AREA SCHEDULE

Name	Area
WORKSHOP	148.85 m²
WASTE	23.55 m²
RECEPTION	31.72 m²
OFFICES	21.39 m²
GROUND LEVEL	225.50 m²
TYRE SHELVES	26.71 m²
TYRE STORE PASSAGE	46.26 m²
TYRE SHELVES	5.55 m²
MEZZANINE LEVEL	78.51 m²
	304.01 m²

LEGEND

- PROPOSED "MY CAR" AREA = 225.50 M²
  - excl. car spaces
  - excl. 4M Concrete Apron
- 4M CONCRETE APRON
- 26 "mycar" CAR SPACES

CONCEPTUAL DESIGN

NO.	DESCRIPTION	DATE
D	Carwash removed, Pylon Removed, Address fixed.	04/05/2023
C	Revised "mycar" Carspaces as per traffic engineer's comments.	04/05/2023
B	Option 2, Access Aisle Flipped	11/10/2022
A	Option 1, Schematic Design.	29/09/2022

mycar

MY CAR - EMERALD HILLS

EMERALD HILLS SHOPPING VILLAGE

Cnr Raby Rd & Emerald Hills Blvd, Leppington NSW 2179

OPTION 2

Scale: As indicated

Date: 04/05/2023

20C16

Bellevue ARCHITECTS PTY LTD

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E-mail: info@bellevuearchitects.com.au

Status: **CONCEPTUAL DESIGN**

SHEET NAME:

SITE LAYOUT & AREA ANALYSIS

Drawing Number: A01

Drawing Revision: D

Plot Date 4/05/2023 8:31:58 PM

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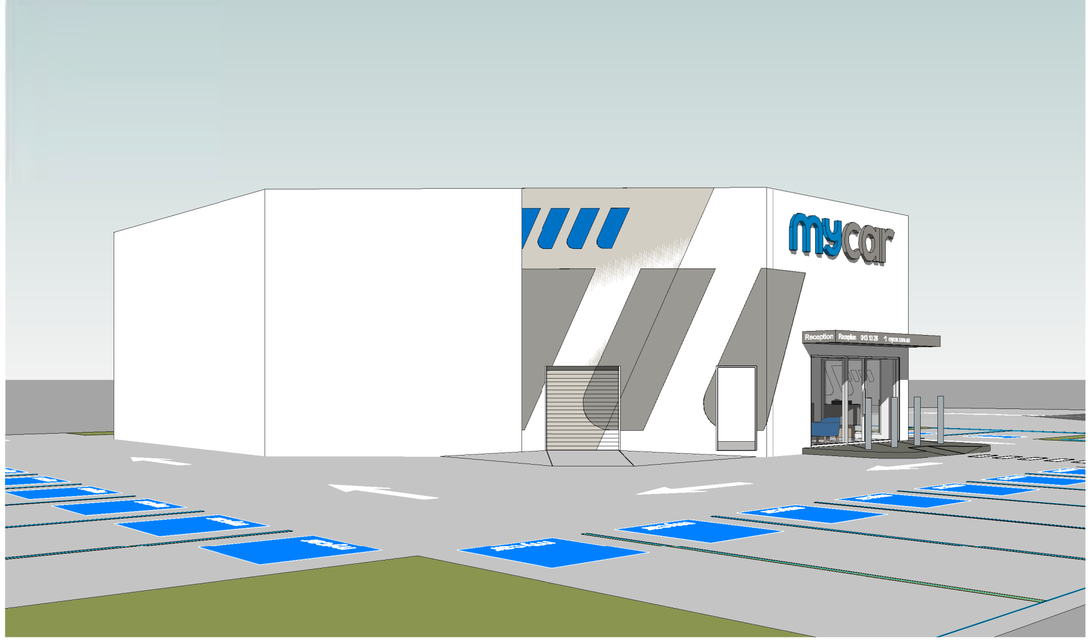
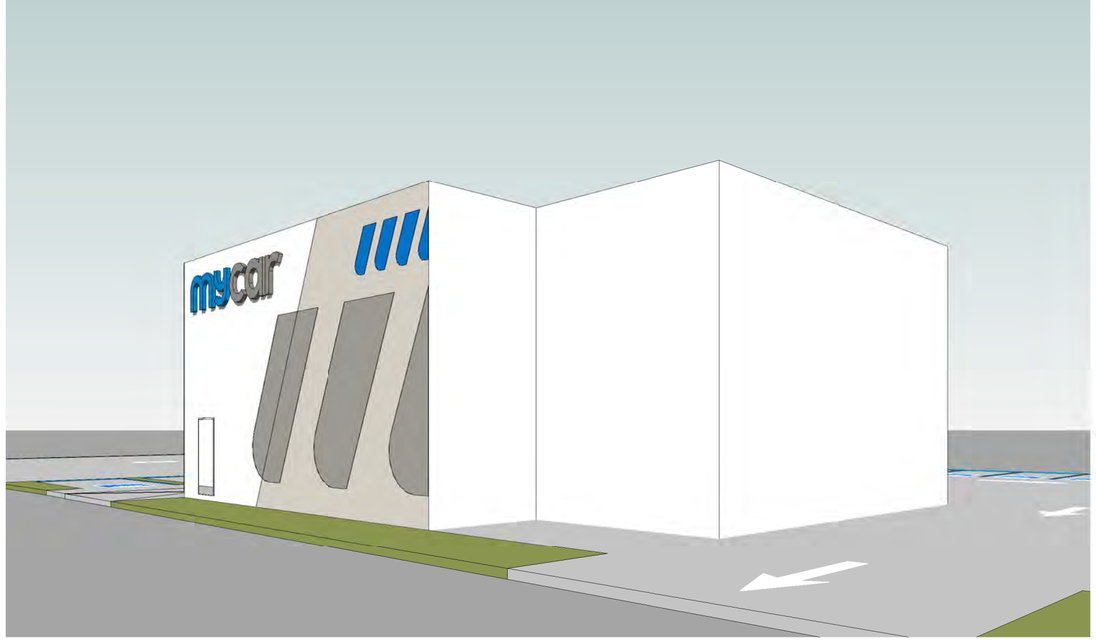
CONCEPTUAL DESIGN

1 **PERSPECTIVE 1**

2 **PERSPECTIVE 2**



3 **PERSPECTIVE 3**



4 **PERSPECTIVE 4**

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B	Option 2, Access Aisle Flipped	11/10/2022
A	Option 1, Schematic Design.	29/09/2022

MY CAR - EMERALD HILLS

EMERALD HILLS SHOPPING VILLAGE

Cnr Raby Rd & Emerald Hills Blvd, Leppington NSW 2179

OPTION 2

Scale:

Date: 04/05/2023

20C16

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Status: **CONCEPTUAL DESIGN**

SHEET NAME:

PERSPECTIVES

Drawing Number: A04

Drawing Revision: D

Plot Date 4/05/2023 8:32:10 PM

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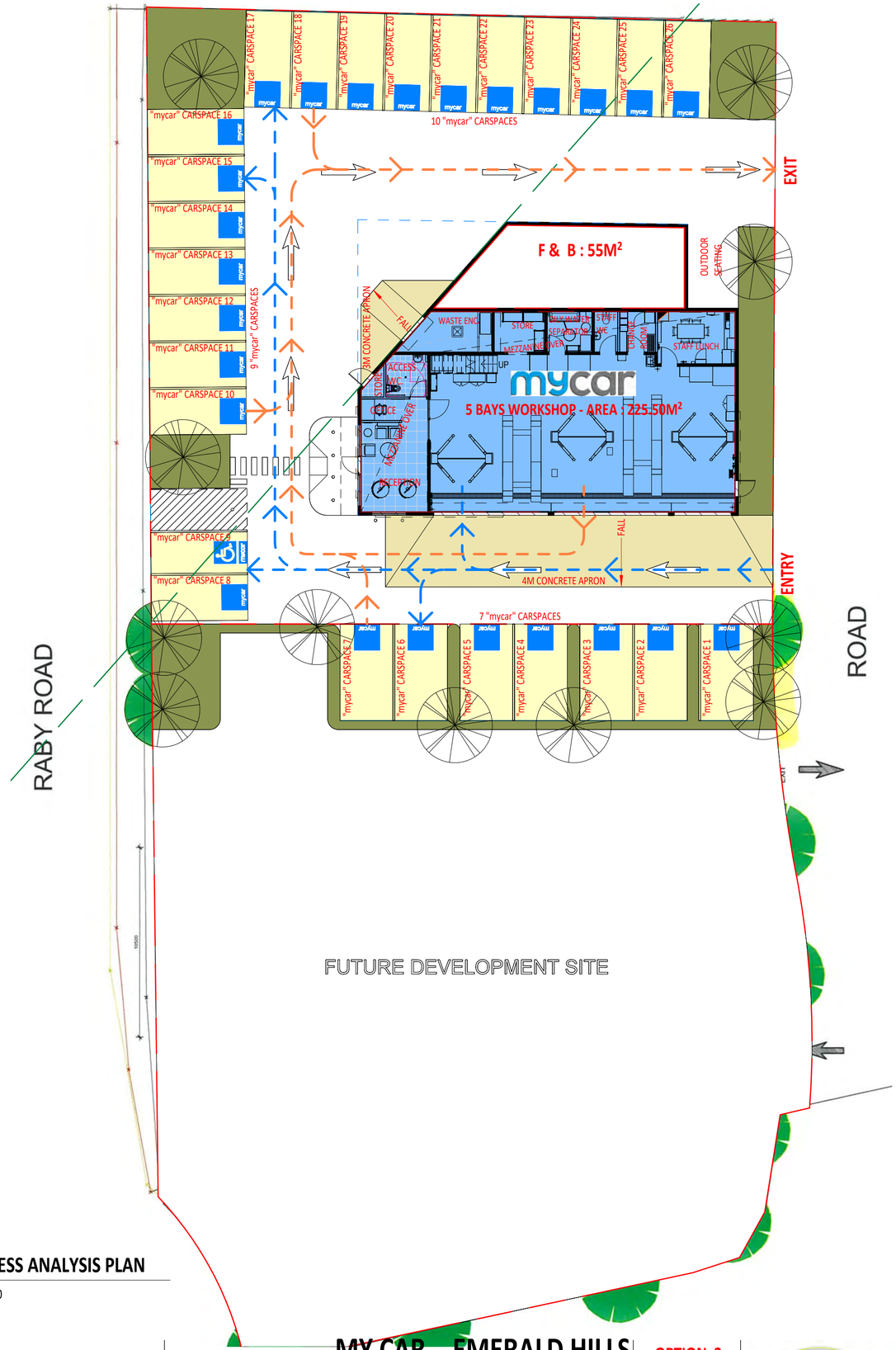
ACCESS ANALYSIS LEGEND

	VEHICLES ENTRY PATHWAY
	VEHICLES EXIT PATHWAY
	PEDESTRIAN SAFE CROSSING

LEGEND

	PROPOSED "MY CAR" AREA = 225.50 M² - excl. car spaces - excl. 4M Concrete Apron
	4M CONCRETE APRON
	26 "mycar" CAR SPACES



1 **ACCESS ANALYSIS PLAN**

1 : 200

CONCEPTUAL DESIGN

NO.	DESCRIPTION	DATE
D	Carwash removed, Pylon Removed, Address fixed.	04/05/2023
C	Revised "mycar" Carspaces as per traffic engineer's comments.	04/05/2023
B	Option 2, Access Aisle Flipped.	11/10/2022
A	Option 1, Schematic Design.	29/09/2022

MY CAR - EMERALD HILLS

EMERALD HILLS SHOPPING VILLAGE

Cnr Raby Rd & Emerald Hills Blvd, Leppington NSW 2179

OPTION 2

Scale: As indicated

Date: 04/05/2023

20C16

Bellevue ARCHITECTS PTY LTD

40 Johnston Road, Bass Hill, NSW 2197

M: +61 404420876

E-mail: info@bellevuearchitects.com.au

Status: **CONCEPTUAL DESIGN**

SHEET NAME: **ACCESS ANALYSIS PLAN AND SIGNAGE SCHEME**

Drawing Number: **A05**

Drawing Revision: **D**

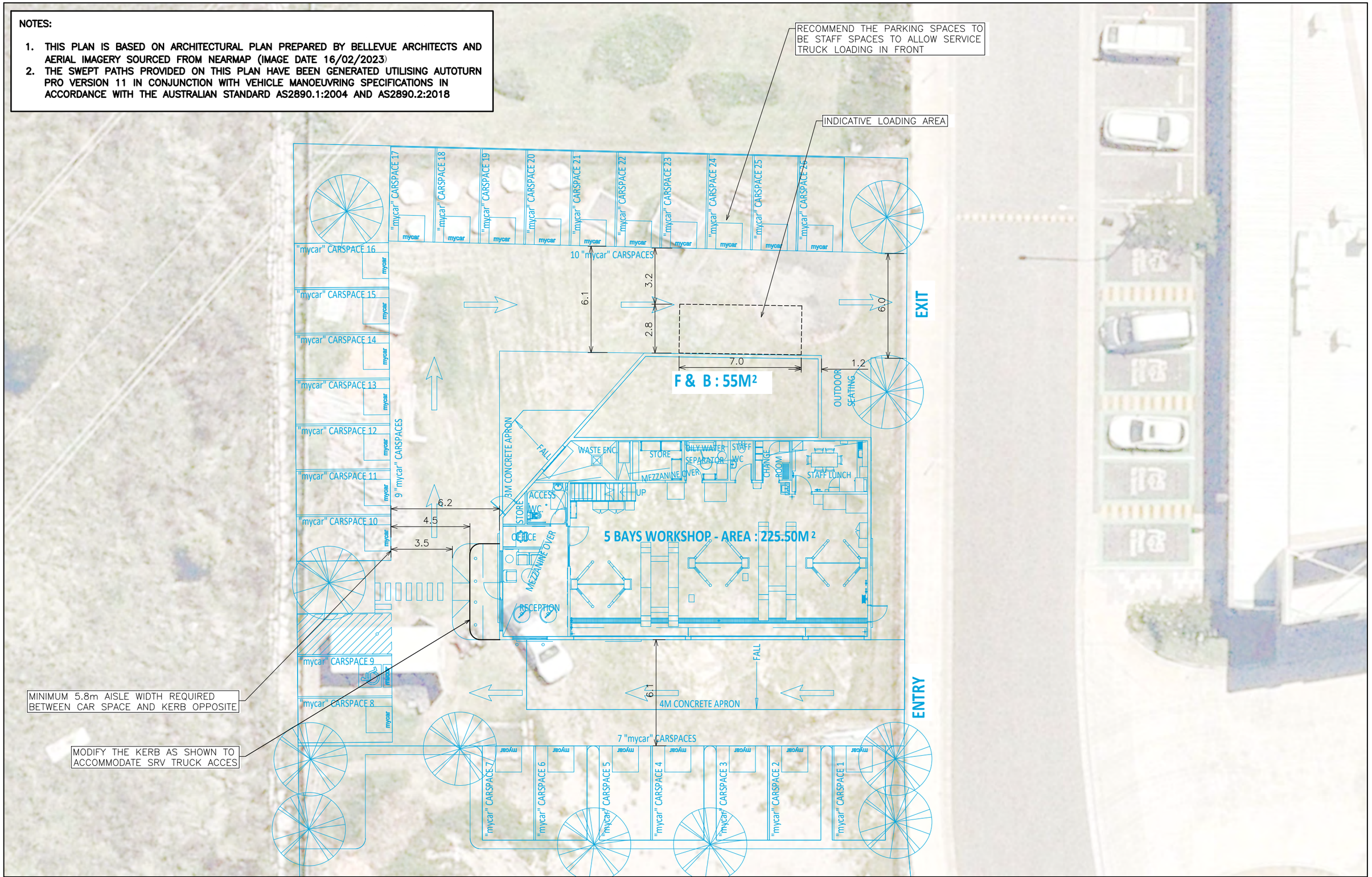
Plot Date 4/05/2023 8:32:14 PM

D:\Architecture\Australia\0 - Bellevue Architecture\Projects\01 - Commercial\20C16 - MyCar - Emerald Hills, NSW\01 Revit\MyCar - Emerald Hills, NSW - 20230504.Dwt

APPENDIX 2

NOTES:

1. THIS PLAN IS BASED ON ARCHITECTURAL PLAN PREPARED BY BELLEVUE ARCHITECTS AND AERIAL IMAGERY SOURCED FROM NEARMAP (IMAGE DATE 16/02/2023)
2. THE SWEPT PATHS PROVIDED ON THIS PLAN HAVE BEEN GENERATED UTILISING AUTOTURN PRO VERSION 11 IN CONJUNCTION WITH VEHICLE MANOEUVRING SPECIFICATIONS IN ACCORDANCE WITH THE AUSTRALIAN STANDARD AS2890.1:2004 AND AS2890.2:2018



STANBURY TRAFFIC PLANNING
TRAFFIC, PARKING & TRANSPORT CONSULTANTS

ADDRESS: 401/380 HARRIS ST, PYRMONT
PH: (02) 8971 8314
EMAIL: info@stanburytraffic.com.au
WEBSITE: www.stanburytraffic.com.au

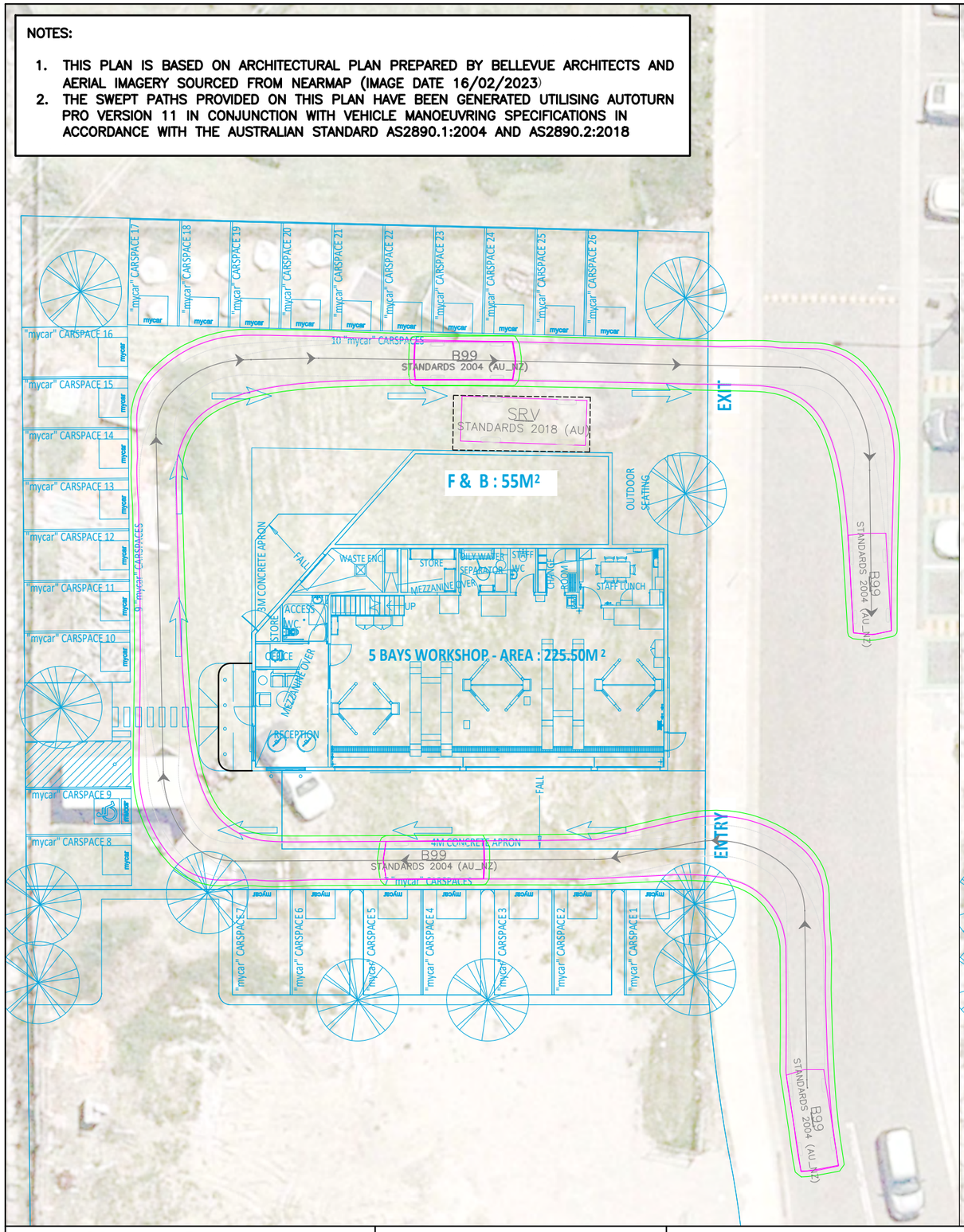
STANBURY TRAFFIC PLANNING

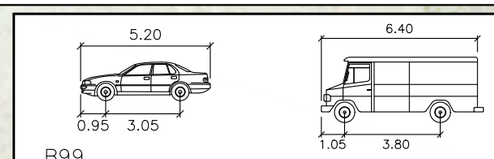
3 EMERALD HILLS BOULEVARD, LEPPINGTON
CAR PARK COMPLIANCE REVIEW
SITE PLAN
CONCEPT LAYOUT

SCALE 0 2.0 4.0 1:200@A3		CREATED BY Y.H
DRAWING NO. 23-034-01-V2		APPROVED BY M.S
DATE 25 May 2023		SHEET 01 / 03

NOTES:

1. THIS PLAN IS BASED ON ARCHITECTURAL PLAN PREPARED BY BELLEVUE ARCHITECTS AND AERIAL IMAGERY SOURCED FROM NEARMAP (IMAGE DATE 16/02/2023)
2. THE SWEPT PATHS PROVIDED ON THIS PLAN HAVE BEEN GENERATED UTILISING AUTOTURN PRO VERSION 11 IN CONJUNCTION WITH VEHICLE MANOEUVRING SPECIFICATIONS IN ACCORDANCE WITH THE AUSTRALIAN STANDARD AS2890.1:2004 AND AS2890.2:2018





SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY

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STANBURY TRAFFIC PLANNING

3 EMERALD HILLS BOULEVARD, LEPPINGTON
CAR PARK COMPLIANCE REVIEW
SITE PLAN
SWEPT PATH ASSESSMENT

SCALE 0 2.5 5.0 1:250@A3		CREATED BY Y.H
DRAWING NO. 23-034-01-V2		APPROVED BY M.S
DATE 25 May 2023		SHEET 02 / 03

NOTES:

1. THIS PLAN IS BASED ON ARCHITECTURAL PLAN PREPARED BY BELLEVUE ARCHITECTS AND AERIAL IMAGERY SOURCED FROM NEARMAP (IMAGE DATE 16/02/2023)
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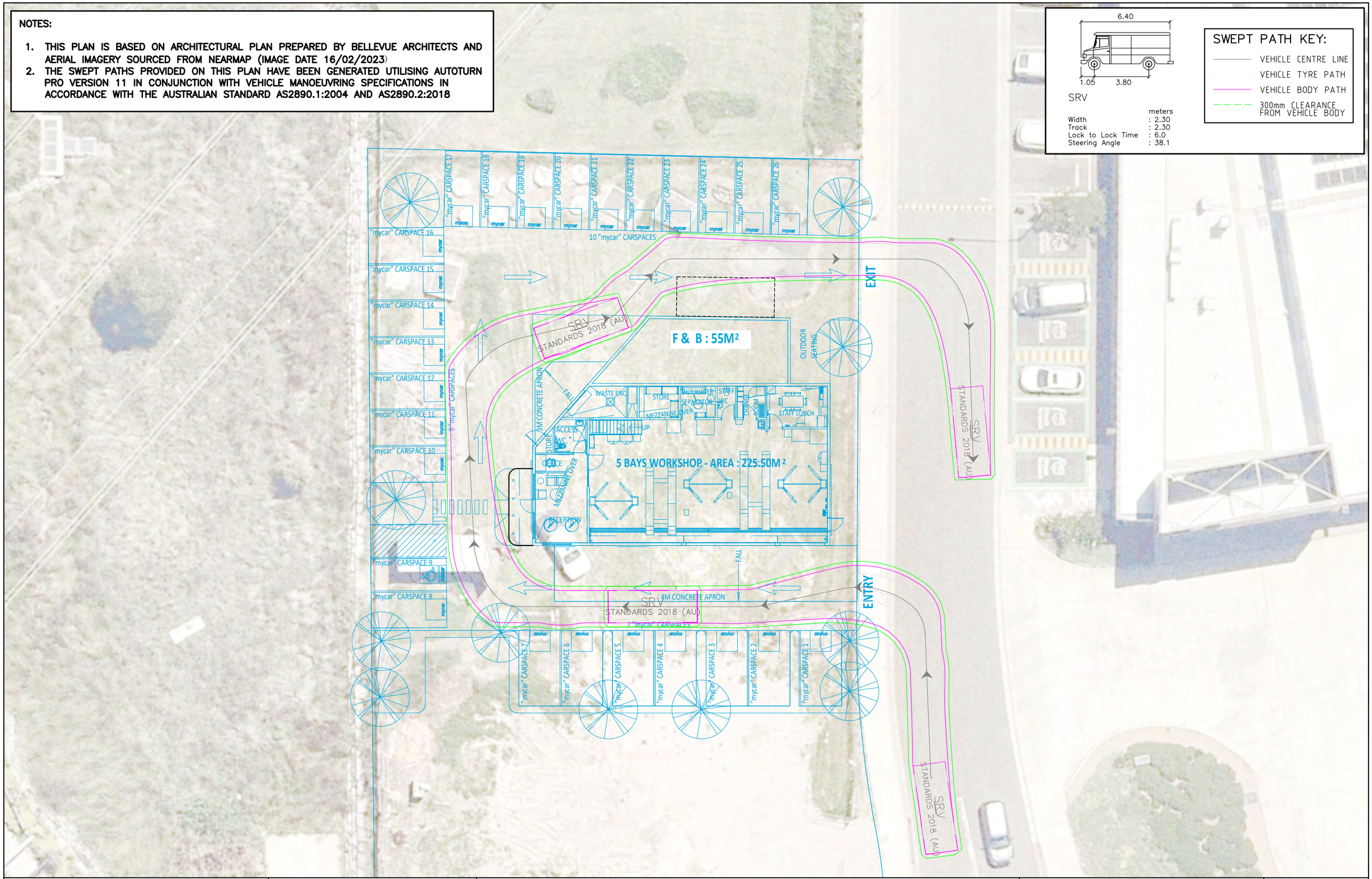

SRV

	meters
Width	: 2.30
Track	: 2.30
Lock to Lock Time	: 6.0
Steering Angle	: 38.1

SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY

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STANBURY TRAFFIC PLANNING

3 EMERALD HILLS BOULEVARD, LEPPINGTON
CAR PARK COMPLIANCE REVIEW
SITE PLAN
SWEPT PATH ASSESSMENT

SCALE	0 2.5 5.0 1:250@A3	CREATED BY Y.H
DRAWING NO.	23-034-01-V2	APPROVED BY M.S
DATE	25 May 2023	SHEET 03 / 03

APPENDIX 3

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph. Mob.0418-239019

Client : Stanbury Traffic Planning

Job No/Name : 7828 MERRYLANDS My Car

Day/Date : Monday 27th March 2023

All Vehicles

	WEST		NORTH		EAST		
	Gladstone St		*Eastern D-Way*		*Gladstone St*		
Time Per	**L**	**T**	**R**	**L**	**T**	**R**	**TOTAL**
0700 - 0715	0	3	0	0		0	**3**
0715 - 0730	0	3	0	0		1	**4**
0730 - 0745	0	2	0	0		0	**2**
0745 - 0800	2	1	0	0		0	**3**
0800 - 0815	0	1	0	0		0	**1**
0815 - 0830	1	1	0	1		0	**3**
0830 - 0845	0	0	0	1		0	**1**
0845 - 0900	1	1	0	0		0	**2**
Period End	**4**	**12**	**0**	**2**	**0**	**1**	**19**

	WEST		NORTH		EAST		
	Gladstone St		*Eastern D-Way*		*Gladstone St*		
Peak Per	**L**	**T**	**R**	**L**	**T**	**R**	**TOTAL**
0700 - 0800	2	9	0	0	0	1	**12**
0715 - 0815	2	7	0	0	0	1	**10**
0730 - 0830	3	5	0	1	0	0	**9**
0745 - 0845	3	3	0	2	0	0	**8**
0800 - 0900	2	3	0	2	0	0	**7**

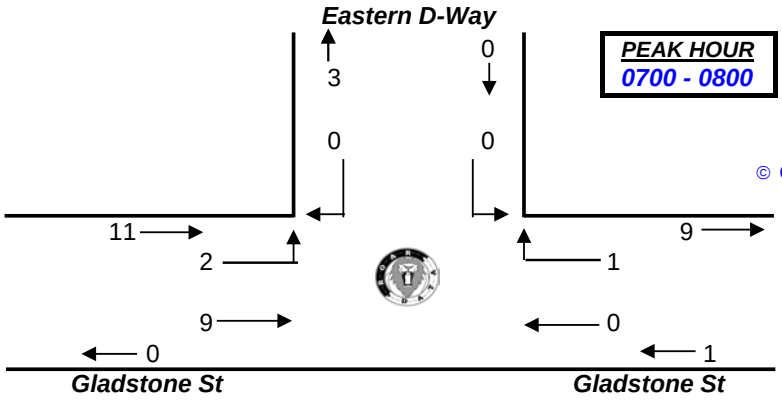
PEAK HR	**2**	**9**	**0**	**0**	**0**	**1**	**12**

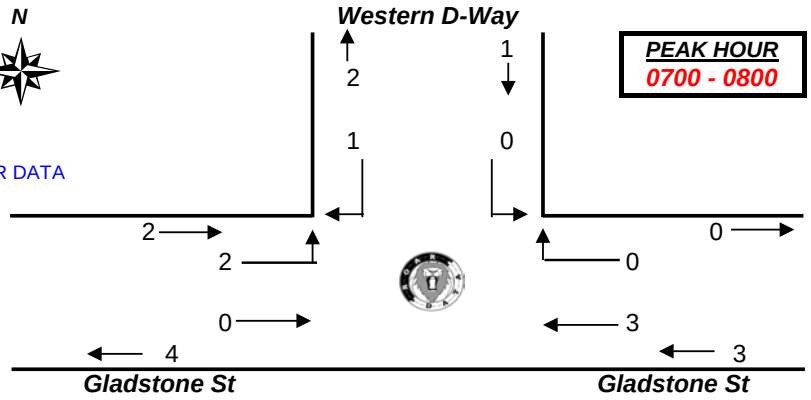
All Vehicles

	WEST		NORTH		EAST		
	Gladstone St		*Western D-Way*		*Gladstone St*		
Time Per	**L**	**T**	**R**	**L**	**T**	**R**	**TOTAL**
0700 - 0715	0		0	0	1	0	**1**
0715 - 0730	1		1	0	1	0	**3**
0730 - 0745	0		0	0	0	0	**0**
0745 - 0800	1		0	0	1	0	**2**
0800 - 0815	0		0	0	0	0	**0**
0815 - 0830	0		0	0	1	1	**2**
0830 - 0845	1		0	0	1	1	**3**
0845 - 0900	1		0	0	0	0	**1**
Period End	**4**	**0**	**1**	**0**	**5**	**2**	**12**

	WEST		NORTH		EAST		
	Gladstone St		*Western D-Way*		*Gladstone St*		
Peak Per	**L**	**T**	**R**	**L**	**T**	**R**	**TOTAL**
0700 - 0800	2	0	1	0	3	0	**6**
0715 - 0815	2	0	1	0	2	0	**5**
0730 - 0830	1	0	0	0	2	1	**4**
0745 - 0845	2	0	0	0	3	2	**7**
0800 - 0900	2	0	0	0	2	2	**6**

PEAK HOUR	**2**	**0**	**1**	**0**	**3**	**0**	**6**





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph. Mob.0418-239019

Client : Stanbury Traffic Planning

Job No/Name : 7828 MERRYLANDS My Car

Day/Date : Monday 27th March 2023

All Vehicles

	WEST		NORTH		EAST		
	Gladstone St		*Eastern D-Way*		*Gladstone St*		
Time Per	**L**	**T**	**R**	**L**	**T**	**R**	**TOTAL**
1600 - 1615	0	3	2	0		1	**6**
1615 - 1630	0	2	3	0		1	**6**
1630 - 1645	0	1	1	0		0	**2**
1645 - 1700	0	2	1	0		0	**3**
1700 - 1715	0	1	0	0		1	**2**
1715 - 1730	0	0	0	0		0	**0**
1730 - 1745	0	0	2	0		0	**2**
1745 - 1800	0	2	0	0		0	**2**
Period End	**0**	**11**	**9**	**0**	**0**	**3**	**23**

	WEST		NORTH		EAST		
	Gladstone St		*Eastern D-Way*		*Gladstone St*		
Peak Per	**L**	**T**	**R**	**L**	**T**	**R**	**TOTAL**
1600 - 1700	0	8	7	0	0	2	**17**
1615 - 1715	0	6	5	0	0	2	**13**
1630 - 1730	0	4	2	0	0	1	**7**
1645 - 1745	0	3	3	0	0	1	**7**
1700 - 1800	0	3	2	0	0	1	**6**

PEAK HR	**0**	**8**	**7**	**0**	**0**	**2**	**17**

All Vehicles

	WEST		NORTH		EAST		
	Gladstone St		*Western D-Way*		*Gladstone St*		
Time Per	**L**	**T**	**R**	**L**	**T**	**R**	**TOTAL**
1600 - 1615	1		2	1	0	0	**4**
1615 - 1630	0		0	1	2	0	**3**
1630 - 1645	0		0	0	4	0	**4**
1645 - 1700	0		1	0	4	0	**5**
1700 - 1715	0		1	0	2	0	**3**
1715 - 1730	0		0	0	5	0	**5**
1730 - 1745	0		0	0	4	0	**4**
1745 - 1800	0		0	0	1	0	**1**
Period End	**1**	**0**	**4**	**2**	**22**	**0**	**29**

	WEST		NORTH		EAST		
	Gladstone St		*Western D-Way*		*Gladstone St*		
Peak Per	**L**	**T**	**R**	**L**	**T**	**R**	**TOTAL**
1600 - 1700	1	0	3	2	10	0	**16**
1615 - 1715	0	0	2	1	12	0	**15**
1630 - 1730	0	0	2	0	15	0	**17**
1645 - 1745	0	0	2	0	15	0	**17**
1700 - 1800	0	0	1	0	12	0	**13**

PEAK HOUR	**1**	**0**	**3**	**2**	**10**	**0**	**16**