MIDSON traffic pty ltd

Elemental Wellness Group

1 Ascot Drive, Huntingfield
Traffic Impact Assessment

May 2024

CELEBRATING 15 YEARS
2008 - 2023

Contents

1. Introduction 4
   - 1.1 Background 4
   - 1.2 Traffic Impact Assessment (TIA) 4
   - 1.3 Statement of Qualification and Experience 4
   - 1.4 Project Scope 5
   - 1.5 Subject Site 5
   - 1.6 Reference Resources 6
2. Existing Conditions 7
   - 2.1 Transport Network 7
   - 2.2 Road Safety Performance 8
3. Proposed Development 9
   - 3.1 Development Proposal 9
4. Traffic Impacts 11
   - 4.1 Trip Generation 11
   - 4.2 Trip Assignment 11
   - 4.3 Access Impacts 11
   - 4.4 Sight Distance 13
   - 4.5 Pedestrian Impacts 14
5. Parking Assessment 15
   - 5.1 Parking Provision 15
   - 5.2 Empirical Parking Assessment 15
   - 5.3 On-Street Parking 16
   - 5.4 Planning Scheme Requirements 17
   - 5.5 Car Parking Layout 18
6. Conclusions 22

Figure Index

Figure 1	Subject Site & Surrounding Road Network	6
Figure 2	Ascot Drive	7
Figure 3	Proposed Development Plans	10
Figure 4	Parking Layout	19

Table Index

Table 1	Planning Scheme SISD Requirements	13
Table 1	Parking Survey Summary	16

1. Introduction

1.1 Background

Midson Traffic were engaged by Elemental Wellness Group to prepare a traffic impact assessment for a proposed gymnasium development at 1 Ascot Drive, Huntingfield.

1.2 Traffic Impact Assessment (TIA)

A traffic impact assessment (TIA) is a process of compiling and analysing information on the impacts that a specific development proposal is likely to have on the operation of roads and transport networks. A TIA should not only include general impacts relating to traffic management, but should also consider specific impacts on all road users, including on-road public transport, pedestrians, cyclists and heavy vehicles.

This TIA has been prepared in accordance with the Department of State Growth (DSG) publication, *Traffic Impact Assessment Guidelines*, August 2020. This TIA has also been prepared with reference to the Austroads publication, *Guide to Traffic Management,* Part 12: *Integrated Transport Assessments for Developments*, 2020.

Land use developments generate traffic movements as people move to, from and within a development. Without a clear understanding of the type of traffic movements (including cars, pedestrians, trucks, etc), the scale of their movements, timing, duration and location, there is a risk that this traffic movement may contribute to safety issues, unforeseen congestion or other problems where the development connects to the road system or elsewhere on the road network. A TIA attempts to forecast these movements and their impact on the surrounding transport network.

A TIA is not a promotional exercise undertaken on behalf of a developer; a TIA must provide an impartial and objective description of the impacts and traffic effects of a proposed development. A full and detailed assessment of how vehicle and person movements to and from a development site might affect existing road and pedestrian networks is required. An objective consideration of the traffic impact of a proposal is vital to enable planning decisions to be based upon the principles of sustainable development.

This TIA also addresses the relevant clauses of E6.0, *Parking and Access Code,* of the Kingborough Interim Planning Scheme, 2015.

1.3 Statement of Qualification and Experience

This TIA has been prepared by an experienced and qualified traffic engineer in accordance with the requirements of Council's Planning Scheme and The Department of State Growth's, *Traffic Impact Assessment Guidelines*, August 2020, as well as Council's requirements.

The TIA was prepared by Keith Midson. Keith's experience and qualifications are briefly outlined as follows:

- 28 years professional experience in traffic engineering and transport planning.
- Master of Transport, Monash University, 2006
- Master of Traffic, Monash University, 2004

- Bachelor of Civil Engineering, University of Tasmania, 1995
- Engineers Australia: Fellow (FIEAust); Chartered Professional Engineer (CPEng); Engineering Executive (EngExec); National Engineers Register (NER)

1.4 Project Scope

The project scope of this TIA is outlined as follows:

- Review of the existing road environment in the vicinity of the site and the traffic conditions on the road network.
- Provision of information on the proposed development with regards to traffic movements and activity.
- Identification of the traffic generation potential of the proposal with respect to the surrounding road network in terms of road network capacity.
- Review of the parking requirements of the proposed development. Assessment of this parking supply with Planning Scheme requirements.
- Traffic implications of the proposal with respect to the external road network in terms of traffic efficiency and road safety.

1.5 Subject Site

The subject site is located at 1 Ascot Drive, Huntingfield. The site was formally a car servicing centre.

The subject site and surrounding road network is shown in Figure 1.

Figure 1 Subject Site & Surrounding Road Network

Image Source: LIST Map, DPIPWE

1.6 Reference Resources

The following references were used in the preparation of this TIA:

- Kingborough Interim Planning Scheme, 2015 (Planning Scheme)
- Austroads, *Guide to Traffic Management,* Part 12: *Integrated Transport Assessments for Developments*, 2020
- Austroads, Guide to Road Design, Part 4A: Unsignalised and Signalised Intersections, 2021
- Department of State Growth, *Traffic Impact Assessment Guidelines*, 2020
- Roads and Maritime Services NSW, *Guide to Traffic Generating Developments*, 2002 (RMS Guide)
- Roads and Maritime Services NSW, *Updated Traffic Surveys,* 2013 (Updated RMS Guide)
- Australian Standards, AS2890.1, *Off-Street Parking*, 2004 (AS2890.1)
- Australian Standards, AS2890.6, *Off-Street Parking for People with Disabilities*, 2009

2. Existing Conditions

2.1 Transport Network

For the purposes of this report, the transport network consists of Ascott Drive and Patriarch Drive.

Ascot Drive connects between Patriarch Drive at its northern end and terminates at a cul-de-sac at its southern end (approximately 420 metres). It services a small commercial/ industrial catchment.

The general urban speed limit of 50-km/h is applicable to Ascot Drive. It is estimated to carry approximately 500 vehicles per day.

Ascot Drive near the subject site is shown in Figure 2.

Figure 2 Ascot Drive

Patriarch Drive connects between Huntingfield Avenue at its western end and terminates at a cul-de-sac at its southern end. It provides access to a small commercial/ industrial catchment area, providing connectivity to Ascot Drive and Coffee Court. Patriarch Drive carries approximately 500 vehicles per day.

2.2 Road Safety Performance

Crash data can provide valuable information on the road safety performance of a road network. Existing road safety deficiencies can be highlighted through the examination of crash data, which can assist in determining whether traffic generation from the proposed development may exacerbate any identified issues.

Crash data was obtained from the Department of State Growth for a 5+ year period between 1st January 2019 and 30th April 2024 for the full length of Ascot Drive.

Two crashes were reported during this time:

- 4:00pm, 1st March 2022 – 'other-on-path' collision between a car and a motorcycle resulting in property damage only.
- 9:00am, 13th July 2023 – undefined single vehicle crash resulting in property damage only.

The crash history does not provide an indication that there are any pre-existing road safety deficiencies in Ascot Drive that may be exacerbated by traffic generated by the proposed development.

3. Proposed Development

3.1 Development Proposal

The proposed development involves the conversion of the existing building into a fitness centre.

The proposed hours of operation of the fitness centre are:

- 5:30am to 7:30am and 9:30am to 10:30am Monday to Friday.
- 4:30pm to 6:00pm Monday to Friday
- 6:30am to 8:30am Saturday

Fitness sessions will involve up to a maximum of 36 people on site, including staff. A total of 5 on-site car parking spaces are proposed, including 1 disabled space.

The proposed development is shown in Figure 3.

Figure 3 Proposed Development Plans

4. Traffic Impacts

4.1 Trip Generation

4.1.1 Previous Use Traffic Generation

The previous use of the site was a car servicing mechanical garage. The RMS Guide recommends a traffic generation rate of 10 trips per 100m^2 of site area, with an evening peak of 1 trip per 100m^2 of site area.

This equates to a previous use traffic generation estimate of 26 vehicles per day, with a peak of 3 vehicles per hour.

4.1.2 Proposed Use Traffic Generation

The RMS Guide provides traffic generation rates for gymnasiums. For 'metropolitan sub-regional areas' the traffic generation rates are recommended as follows:

Daily vehicle trips = 45 trips per 100m^2 of gross floor area.

Evening peak hour trips = 9 trips per 100m^2 of gross floor area.

This equates to a traffic generation of 117 vehicles per day with a peak of 23 vehicles per hour.

It is noted that the car park is limited in terms of capacity (5 cars) and therefore a reasonable proportion of peak traffic generation is likely to occur in the surrounding road network in the form of on-street car parking.

4.1.3 Change in Traffic Generation

The change in traffic generation between the previous and proposed uses is:

- Daily traffic generation change +91 vehicles per day
- Peak traffic generation change +20 vehicles per hour

4.2 Trip Assignment

Based on the connectivity of the site with the surrounding network, the majority of vehicle movements at the site's access will be left-in/ right-out.

4.3 Access Impacts

No changes to accesses to the site are proposed. The car park and associated accesses arrangements will be unaltered from the previous use of the site.

The Acceptable Solution A3 of Clause E5.5.1 of the Planning Scheme states "*The annual average daily traffic (AADT) of vehicle movements, to and from a site, using an existing access or junction, in an area*

subject to a speed limit of 60km/h or less, must not increase by more than 20% or 40 vehicle movements per day, whichever is the greater".

In this case the traffic generation will increase by more than 40 vehicles per day (noting that not all traffic generation will be experienced at the site's access, but within the surrounding road network as on-street parking). The Acceptable Solution A3 of Clause E5.5.1 of the Planning Scheme is not met.

The Performance Criteria P3 of Clause E5.5.1 of the Planning Scheme states:

> *"Any increase in vehicle traffic at an existing access or junction in an area subject to a speed limit of 60km/h or less, must be safe and not unreasonably impact on the efficiency of the road, having regard to:*
>
> *(a) the increase in traffic caused by the use;*
>
> *(b) the nature of the traffic generated by the use;*
>
> *(c) the nature and efficiency of the access or the junction;*
>
> *(d) the nature and category of the road;*
>
> *(e) the speed limit and traffic flow of the road;*
>
> *(f) any alternative access to a road;*
>
> *(g) the need for the use;*
>
> *(h) any traffic impact assessment; and*
>
> *(i) any written advice received from the road authority".*

The following is relevant to the proposed development:

a. Increase in traffic. The increase in traffic is likely to be in the order of 117 vehicles per day. The peak generation of approximately 23 vehicles per hour represents an average of less than 1 vehicle movement every 2.5 minutes. The increase in traffic can be readily absorbed at the site's access as well as the surrounding road network at a high level of efficiency.

b. Nature of traffic generated. The traffic generated by the proposed development will be commercial in nature, which is consistent and compatible with the previous use as well as the traffic currently utilising the surrounding network.

c. Nature and efficiency of access. The peak generation of approximately 23 vehicles per hour represents an average of less than 1 vehicle movement every 2.5 minutes. The increase in traffic can be readily absorbed at the site's access at a high level of efficiency.

d. Nature and category of road. Ascot Drive is a local access road that services a small commercial and industrial catchment.

e. Speed limit and traffic flow. Ascot Drive has a posted speed limit of 50-km/h and traffic flow of approximately 500 vehicles per day.

f. Alternative access. The site is located on a corner – no alternative access is necessary.

g. Need for use. The driveway is required to provide access to the on-site car parking spaces.

h. Traffic impact assessment. This report documents the findings of a traffic impact assessment.

i. Road authority advice. Council, as road authority, require a TIA to be prepared for the proposed development.

Based on the above assessment, the proposed development satisfies the requirements of Performance Criteria P3 of Clause E5.5.1 of the Planning Scheme.

4.4 Sight Distance

The Acceptable Solution A1 of E5.6.4 of the Planning Scheme states "*Sight distances at an access or junction must comply with the Safe Intersection Sight Distance shown in Table E5.1*".

Table E5.1 is reproduced in Table 1. The "Vehicle Speed" is defined in the Planning Scheme as "*the actual or recorded speed of traffic passing along the road and is the speed at or below which 85% of passing vehicles travel*". This is often referred to as the "Design Speed" or the "85th Percentile speed" in traffic engineering terminology.

Table 1 Planning Scheme SISD Requirements

Vehicle Speed	Safe Intersection Sight Distance in metres, for speed limit of:	
km/h	60 km/h or less	Greater than 60 km/h
50	80	90
60	105	115
70	130	140
80	165	175
90		210
100		250
110		290

Source: Table E5.1, Kingborough Interim Planning Scheme, 2015

For a frontage road of 50-km/h, the required SISD is 80 metres. No changes are proposed for the site's access. The available sight distance at the access complies with the requirements of Table E5.1, noting that full sight distance is available into the side road of Patriarch Drive from the access (sight distance into adjacent roads is not a requirement of the Planning Scheme).

The Acceptable Solution A1 of Clause E5.6.4 of the Planning Scheme is therefore met.

4.5 Pedestrian Impacts

The proposed development is likely to generate some pedestrian activity in the network. The existing footpath infrastructure is considered to be of a high standard in the existing road network to cater for these pedestrian movements.

5. Parking Assessment

5.1 Parking Provision

The proposed development provides a total of 5 on-site car parking spaces. This includes one disabled parking space.

5.2 Empirical Parking Assessment

The RMS Guide recommends a parking rate metropolitan sub-regional centres that is consistent with the Planning Scheme: 4.5 spaces per 100m^2 of floor area, equating to a requirement for 11 spaces.

The RMS Guide notes the following in relation to gymnasiums located in metropolitan areas:

> *"If a gymnasium is located within a regional centre and is in close proximity to rail / bus services, the recommended off-street parking provision is 3.0 spaces per 100m^2 GFA".*

In this case the site is located in close proximity to bus services, however the site would not normally be considered to be in a metropolitan area as defined by the RMS Guide.

It is noted that the parking rates for gymnasiums provided in the RMS Guide were based on surveys completed in 1993. Many changes have been noted since this time in terms of the operational characteristics of gymnasiums, notably:

- Increased number of gymnasiums resulting in increased choice for customers.
- Increased opening hours, spreading demands over a longer period of time. This generally results in a decrease in peak traffic generation and a decrease of peak parking demand.

The NSW gymnasium parking report provided as an appendix to the TIA provides an update to the RMS Guide. This was in the form of updated surveys of a small selection of gymnasiums in the Sydney region in 2014. It shows a decrease in parking demands associated with gymnasiums due to a number of factors. The peak parking demand ranged from 1.4 spaces per 100m^2 to 4.3 spaces per 100m^2 with an average of 2.8 spaces per 100m^2. The sites surveyed would be classified as 'metropolitan'. It is also noted that none of the gymnasiums surveyed were 24-hour operation.

On this basis, it would be reasonable to assume that the parking demand would be lower than 4.5 spaces per 100m^2, but more than 2.8 spaces per 100m^2.

Based on the above, a rate of 3.5 spaces per 100m^2 has been adopted. This is a requirement for 9 spaces, which represents an overflow of 4 spaces that would need to be accommodated in the surrounding on-street network.

5.3 On-Street Parking

There is a relatively large pool of nearby on-street parking supply near the subject site. This consists of:

- 12 spaces on the eastern side of Ascot Drive between Patriarch Drive and 13 Ascot Drive.
- 12 spaces on the western side of Ascot Drive between Patriarch Drive and 10 Ascot Drive.
- TOTAL 24 spaces within ~150 metres of the subject site.

No time restrictions have been installed near the subject site.

Parking surveys were undertaken on Saturday 4th May and Tuesday 14th May at various times within the on-street areas identified above. The results are summarised in Table 2.

It can be seen that the minimum available parking within the surveyed area was 7 spaces (maximum 20 spaces). This available parking supply satisfies the likely demand associated with the development proposal.

It is noted that additional on-street parking is available within 200 metres of the site (considered to be a convenient walking distance), including further into Ascot Drive, as well as within Patriarch Drive. These areas were not surveyed as the above parking zones were considered to be adequate for the purposes of the proposed development's parking requirements. It was noted that parking demands within Patriarch Drive were relatively low.

Table 2 Parking Survey Summary

Date/ Time	Eastern Side	Western Side	Total Cars	Available Spaces
4th May 10:00am	2 cars	3 cars	5 cars	19 spaces
4th May 2:00pm	2 cars	2 cars	4 cars	20 spaces
14th May 9:00am	7 cars	9 cars	16 cars	8 spaces
14th May 11:00am	8 cars	9 cars	17 cars	7 spaces
14th May 1:00pm	8 cars	9 cars	17 cars	7 spaces
14th May 5:00pm	6 cars	7 cars	13 cars	11 spaces
Average				12 spaces

5.4 Planning Scheme Requirements

The Acceptable Solution A1 of Clause E6.6.1 of the Planning Scheme states "*The number of on-site car parking spaces must be no less than the number specified in Table E6.1*".

Table E6.1 requires 4.5 space for each 100m^2 of floor area for a 'fitness centre' land use. This is a requirement for 12 spaces. The provision of 5 spaces therefore does not comply with the requirements of Acceptable Solution A1 of Clause E6.6.1 of the Planning Scheme.

The Performance Criteria P1 of Clause E6.6.1 of the Planning Scheme states:

> *"The number of on-site car parking spaces must be sufficient to meet the reasonable needs of users, having regard to all of the following:*
>
> *(a) car parking demand;*
>
> *(b) the availability of on-street and public car parking in the locality;*
>
> *(c) the availability and frequency of public transport within a 400m walking distance of the site;*
>
> *(d) the availability and likely use of other modes of transport;*
>
> *(e) the availability and suitability of alternative arrangements for car parking provision;*
>
> *(f) any reduction in car parking demand due to the sharing of car parking spaces by multiple uses, either because of variation of car parking demand over time or because of efficiencies gained from the consolidation of shared car parking spaces;*
>
> *(g) any car parking deficiency or surplus associated with the existing use of the land;*
>
> *(h) any credit which should be allowed for a car parking demand deemed to have been provided in association with a use which existed before the change of parking requirement, except in the case of substantial redevelopment of a site;*
>
> *(i) the appropriateness of a financial contribution in lieu of parking towards the cost of parking facilities or other transport facilities, where such facilities exist or are planned in the vicinity;*
>
> *(j) any verified prior payment of a financial contribution in lieu of parking for the land;*
>
> *(k) any relevant parking plan for the area adopted by Council;*
>
> *(l) the impact on the historic cultural heritage significance of the site if subject to the Local Heritage Code;*
>
> *(m) whether the provision of the parking would result in the loss, directly or indirectly, of one or more significant trees listed in the Significant Trees Schedule".*

The following is relevant with respect to the development proposal:

a. Car parking demand. The likely parking demand is 9 spaces as noted in Section 5.2.

b. On-street car parking. Parking surveys were conducted in Ascot Drive as detailed in Section 5.3. There is effectively no provision for on-street car parking in the surrounding network to cater for overflow parking associated with the proposed development. Specifically the likely on-street parking demand will be 4 spaces (9 spaces total, with 5 spaces provided on-site). The surveyed available parking in Ascot Drive ranged between 7 spaces and 20 spaces.

c. Public transport. The site is located adjacent to a Metro bus service that operates along Huntingfield Avenue and Patriarch Drive. Bus services operate on a frequent basis.

d. Other modes of transport. The surrounding network also has a very good provision of bicycle and walking paths.

e. Alternative parking provision. No alternative parking provision is deemed to be necessary.

f. Shared parking principles. It is possible that some nearby workers within the Huntingfield Estate may join the proposed gymnasium. On this basis they may already be parked for the purposes of employment and attend the gymnasium before or after their work day.

g. Car parking deficiency or surplus. Not applicable.

h. Car parking credit. Not applicable.

i. Historic cultural heritage. Not applicable.

j. Significant trees schedule. Not applicable.

Based on the above assessment, the proposed development meets the requirements of Performance Criteria P1 of Clause E6.6.1 of the Planning Scheme. Specifically there is sufficient spare capacity within the surrounding road network to cater for the full parking demands associated with the proposed development.

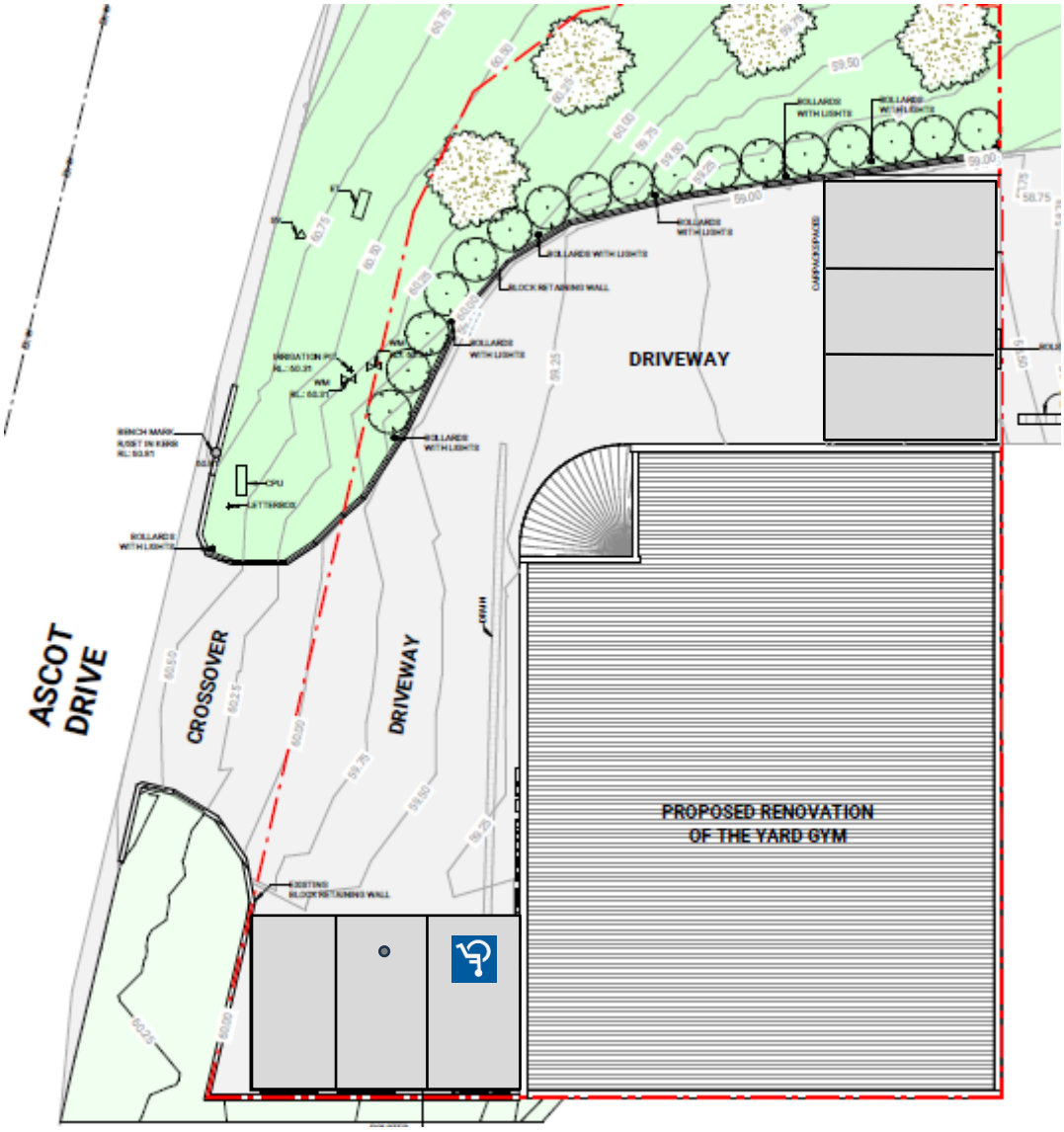
5.5 Car Parking Layout

The previous use of the site provided a total of 9 on-site car parking spaces. This consisted of 2 rows of 3 'jockey style' spaces along the eastern boundary, and 3 spaces on the southern boundary. The jockey spaces were likely utilised for storing cars that were being serviced.

The revised layout consists of 5 spaces: 3 spaces on the eastern boundary; and 2 spaces on the southern boundary (including one disabled parking space).

The parking layout is shown in Figure 4.

Figure 4 Parking Layout



The Acceptable Solution A1 of Clause E6.7.5 of the Planning Scheme states "*The layout of car parking spaces, access aisles, circulation roadways and ramps must be designed and constructed to comply with section 2 "Design of Parking Modules, Circulation Roadways and Ramps" of AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking and must have sufficient headroom to comply with clause 5.3 "Headroom" of the same Standard*".

The assessment of the requirements of AS2890.1 are set out in the following sections.

5.5.1 Ramp Assessment

Section 2.5.3(b) of AS2890.1 states the following regarding the maximum grade of straight ramps:

i. Longer than 20 metres – 1 in 5 (20%) maximum.

ii. Up to 20 metres long – 1 in 4 (25%) maximum. The allowable 20 m maximum length shall include any parts of the grade change transitions at each end that exceed 1 in 5 (20%).

The ramp is less than 20 metres and has a grade lower than 20%, thereby complying with AS2890.1 requirements (maximum grade ~ 16%).

5.5.2 Car Parking Dimensions

For residential parking spaces (User Class 2[1]), Australian Standards, AS2890.1 requires the following dimensions for 90-degree parking spaces:

- Space width 2.5 metres
- Space length 5.4 metres
- Aisle width 5.8 metres

The disabled parking space is classified in AS2890.6, requiring the following dimensions:

- Space width 2.4 metres + shared area adjacent 2.4 metres with bollard
- Space length 5.4 metres
- Aisle width 5.8 metres

All spaces meet the minimum AS2890.1 and AS2890.6 dimensional requirements.

5.5.3 Driveway Width

AS2890.1 defines the access as 'Category 1' access facility (Class 2 parking with less than 25 spaces fronting onto a local road). The AS2890.1 minimum driveway width requirement is 3.0 metres. The driveway width is approximately 6 metres, therefore the access width complies with the requirements of AS2890.1.

[1] User Class 2 is defined as 'long-term city and town centre parking, sports facilities, entertainment centres, hotels, motels, airport visitors (generally medium term parking)'

5.5.4 AS2890.1 Assessment Summary

The parking space dimensions and manoeuvring areas comply with the requirements of AS2890.1. The development therefore complies with the requirements of Acceptable Solution A1 of Clause E6.7.5 of the Planning Scheme.

6. Conclusions

This traffic impact assessment (TIA) investigated the traffic and parking impacts of a proposed gymnasium development at 1 Ascot Drive, Huntingfield.

The key findings of the TIA are summarised as follows:

- The development involves a change of use from a mechanical garage to a gymnasium.
- The traffic generation associated with the proposed development will be 117 vehicles per day, with a peak of 23 vehicles per hour. This represents an increase in traffic generation of approximately 91 vehicles per day, and a peak increase of 20 vehicles per hour.
- The traffic generation at the site's access satisfies the requirements of Performance Criteria P3 of Clause E5.5.1 of the Planning Scheme.
- The on-site parking provision is 5 spaces, which includes 1 disabled parking space. The parking satisfies the requirements of Performance Criteria P1 of Clause E6.6.1 of the Planning Scheme on the basis that the likely parking demands will be lower than Planning Scheme (Table E6.1) requirements, and the shortfall of parking can be supplied by nearby on-street car parking.
- The car parking layout complies with the requirements of Acceptable Solution A1 of Clause E6.7.5 of the Planning Scheme.

Based on the findings of this report the proposed development is supported on traffic and parking grounds.

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Dear Shaun,

1 ASCOT DRIVE – RESPONSE TO COUNCIL RFI

Further to our recent discussions, this letter provides a response to Council's request for further information relating to the proposed development at the abovementioned address.

Council's RFI is critical of a number of aspects relating to the original traffic impact assessment (TIA). Where appropriate, the TIA has been updated. A review of each of the matters raised by Council are addressed in the following sections.

1. Changes to Development

I understand that the development has changed the number of members per class from 36 to 20, with 2 staff in attendance at each class. Class times are unchanged – class times are limited to operating hours of 5:30am -7:30am; 9:30am – 10:30am; and 4:30pm – 6:00pm on weekdays, and 6:30am – 8:30am on Saturdays.

2. Transport Network

Council has questioned the estimate of traffic volumes currently utilising Ascot Drive. The TIA estimated an average daily traffic volume of approximately 500 vehicles per day. This was estimated based on the land use frontage along Ascot Drive.

Council have referenced a traffic count in Patriarch Drive. It is assumed that the traffic data was obtained in Patriarch Drive between Huntingfield Drive and Ascot Drive. The 2016 traffic data recorded an ADT of 1,600 vehicles per day and made an assumption that this volume consisted of equal volumes originating from Ascot Drive and Patriarch Drive. Council uses this assumption to estimate the traffic volume of Ascot Drive to be 800 vehicles per day.

Council's methodology is flawed. The 1,600 vehicles per day would also include traffic generated from the back-of-house access of the Mitre 10 site, as well as industrial traffic associated with Coffee Court. It is further noted that Patriarch Drive is longer than Ascot Drive, with a significantly greater site area that generates traffic (Patriarch Drive connects to approximately 7.0 hectares of industrial/ commercial land compared to 5.8 hectares for Ascot Drive, noting that a section of Ascot Drive frontage connects to the

rear of St Aloysius School but does not provide vehicular access). On this basis, it would be expected that Patriarch Drive would have a higher traffic volume than Ascot Drive.

Based on the above observations, the traffic volume of Ascot Drive is likely to be between 500 and 600 vehicles per day.

Irrespective of the assumptions made by the TIA or Council, a traffic volume of 500, 800 or even 1,000 vehicles per day is considered to be very low. This would correspond to an AM peak hour volume between 55 to 110 vehicles per hour, and a PM peak of 70 to 140 vehicles per hour (using a range of 500 to 1,000 vehicles per day and peak splits obtained from Council's Patriarch Drive data). In real terms all peak hour flows would be an average of around 2 vehicles per minute.

It is quite peculiar that Council have attempted to make an issue over such a low traffic volume. Traffic volumes anywhere within this range would not alter the findings of the TIA in terms of capacity or safety.

3. Road Safety Performance

Council have questioned the road safety performance of Ascot Drive on the basis that a crash has been reported adjacent to the subject site.

The Police crash report was obtained from the Department of State Growth. The crash occurred on Thursday 13th July 2023 adjacent to the subject site. Police did not attend the crash, which involved property damage only. The Police statement is reproduced as follows:

> *"Between around 9:00am – 5:45pm on the 13th July 2023, U1 was parked on Ascot Drive, Huntingfield, outside Cooper Automotive. At an unknown time, an unknown vehicle has collided with U1, causing damage to the front bumper, drivers side door and wing mirror".*

This particular crash is not considered a road safety issue. It is simply a parked vehicle collision that was not attended by Police. If a pattern of similar crashes had been reported within Ascot Drive, it may be considered a road safety issue. Crashes involving parked vehicles are relatively commonplace in urban environments.

As noted in the TIA, two crashes were reported in Ascot Drive in the most recent five-year period. This is a low crash rate and no crash trends can be derived from the crash data.

4. Trip Generation

Council were critical of the traffic generation rates of the proposed development. The reference to the RMS Guide is commonplace and considered to be an industry standard. It is agreed however that the proposed development differs from typical gyms in that the development provides classes for a limited number of members at very defined periods of time throughout the day. On this basis the actual traffic generation is likely to be lower than a comparable gymnasium that has unrestricted access for members throughout the day.

Using first principles, the traffic generation is likely to be as follows:

- The development will operate in three time periods of weekday and once on a weekend as noted in Section 1. Each time period have a maximum of 20 members and 2 staff.
- Members and staff will arrive 80% by car. An average car occupancy of 1.5 people per vehicle has been assumed.
- The total traffic generation for each time period will therefore be 12 cars. A peak generation of 24 vehicles per hour can therefore be expected to account for two-way movements. Note that

some sessions extend for longer than an hour, so the actual peak generation will be less than this amount for most sessions.

- During a weekday, a total of 3 sessions will be run. This will result in a daily generation of 72 vehicles per day.

Note the above traffic generation is also based on the assumption that all classes are operating at maximum capacity of 20 people per session.

5. Access Impacts

Council have stated: "*Traffic flow of approximately 800 vehicles a day has not been considered in the assessment. Traffic generated by the proposed development will not be commercial in nature. It will be customers attending the gym classes*".

As noted in Section 1 above, traffic flow of 800 vehicles per day is not agreed. Even if it were 800 vehicles per day (or higher), it does not alter the findings of the access arrangements. There are many examples of commercial driveways that have road frontages with traffic volumes exceeding 800 vehicles per day in urban environments. Given that the access only services 5 on-site car parking spaces, the potential conflict between the road frontage and traffic generated by the development will be very low.

The comment relating to "commercial in nature" refers to the type of traffic that will be generated. Specifically it is not "residential" or "industrial" in nature. It could be argued that it is closer to "residential" in nature given that it will only generate cars, but in my opinion that would be a misleading statement.

6. Pedestrian Impacts

In close proximity to the subject site footpaths are provided on one side of the road. This is relatively standard practice for low volume roads. LGAT design standards only require a footpath on one side of the road for low volume subdivisions for example.

Council have approved the subdivision and subsequent development of Ascot Drive and Patriarch Drive in the knowledge of the footpath infrastructure. The proposed development is a reuse of an existing building and will not substantially alter the pedestrian generation within the network.

7. Empirical Parking Assessment

Council were critical of the parking generation calculations of the proposed development within the TIA. As noted in Section 4, the reference to the RMS Guide is commonplace and considered to be an industry standard. It is agreed however that the proposed development differs from typical gyms in that the development provides classes for a limited number of members at very defined periods of time throughout the day. On this basis the actual parking demand is likely to be lower than a comparable gymnasium that has unrestricted access for members throughout the day.

Using first principles, the parking demands are likely to be as follows:

- The development will operate in three time periods of weekday and once on a weekend as noted in Section 1. Each time period have a maximum of 20 members and 2 staff.
- Members and staff will arrive 80% by car. An average car occupancy of 1.5 people per vehicle has been assumed.
- The parking accumulation for each session will therefore be 12 cars.

Note the above parking demands are based on the assumption that all classes are operating at maximum capacity of 20 people per session.

8. On-Street Parking

Council were critical of the parking surveys undertaken in the TIA:

> *"Whilst a Parking Survey was conducted, four of the six times that the survey was conducted are times where the gym would not be operating (based on the times indicated in the report). It is considered that surveys should be completed at times relative to operating hours of the gym, when people would be arriving at the gym for classes.*
>
> *The available parking considered within walking distance is limited; the report indicates that there are only 24 spaces within 150m of the subject site. So, if 36 people attend at one time, the use would take up all available parking in the street, not allowing for any other on-street parking users in proximity to the proposed gym".*

The parking surveys were undertaken to provide an indication of the existing on-street car parking demands. The parking surveys clearly indicated that the demands for on-street parking are related to commuter parking for nearby businesses. It was also noted that the neighbouring car servicing centre generated a moderate amount of parking associated with vehicles being serviced. It is assumed that the previous use of the subject site would have generated similar parking demands on the network.

The parking surveys also showed that car parking demands were lowest during the morning. A review of parking at 6:30am on Thursday 20th June indicated that only one car was parked within the survey area. It is a reasonable assumption that on-street parking demands associated with the proposed development will not clash with commuter parking demands associated with nearby businesses during the morning.

It is unclear why Council would state that "*the use would take up all the available parking in the street*", when:

- Not all members will arrive by car (ie. bus, bicycle, pedestrian, already parked for nearby business, etc).
- Car occupancy of arriving members is likely to be greater than 1.
- Additional parking is available further into Ascot Drive if required. On-street parking demands appear to reduce towards the southern end of Ascot Drive, with low on-street parking demand being observed.
- On-site parking is provided for 5 spaces.

It is also noted that the reduction in class sizing from 36 members to 20 members will reduce the likely on-street parking demands.

9. Planning Scheme Requirements

Council have made a number of claims relating to the assessment of the Performance Criteria P1 of Clause E6.6.1 of the Planning Scheme. To address these matters, I have provided more detail and clarification associated with each of the points contained in the Performance Criteria assessment.

Car parking demand

The car parking demands were calculated to be 12 cars in Section 7 of this letter.

On-street and public parking

On-street parking is detailed in Section 8. Based on a likely parking demand of 12 spaces, the on-street parking demands are likely to be 7 spaces. Parking surveys indicate that there is sufficient spare capacity in the surrounding road network to cater for more than 7 spaces.

Public Transport

In relation to public transport Council states "*the TIA indicates that the site is located adjacent to a Metro bus service that operates along Huntingfield Avenue and Patriarch Drive and that buses operate on a frequent basis. It is Council's understanding that there is limited public transport within a 400m walking distance of the site and that no public transport operates along Patriarch Drive…*".

The Huntingfield Park and Ride facility is located approximately 350 metres from the site. According to Metro Tasmania, the Huntingfield facility is described as "*The Huntingfield Park and Ride facility offers space for 174 vehicles, 26 bicycles, a quick drop off lane, upgraded shelters and an amenity building*". The park and ride facility provides a centralised public transport station offering bus services to Kingston Central; Hobart College; Hobart; Taroona; Sandy Bay; Margate; Snug; Woodbridge; Middleton; and Gordon. It is one of the largest and best developed transit facilities in Tasmania. The facility is available to the public; the facility is therefore available to potential gym members who wish to utilise the proposed development.

The reference to bus services operating along 'Huntingfield Drive' in the TIA relates to the park and ride facility. The reference to bus services in Patriarch Drive in the TIA was in error.

I strongly disagree with Council's statement regarding a lack of public transport facilities near the subject site. Public transport facilities are clearly readily available to/ from almost any destination in Southern Tasmania and the subject site. Furthermore, the development does not specifically rely upon the availability of frequent public transport services, particularly given the limited operating hours associated with the proposed development.

Other modes of transport

Council were critical of the potential for use of other modes of transport: "*it is not clear on what basis the claim of adequate availability and likely use of other modes of transport is made. There is no bicycle infrastructure and poor pedestrian amenity in the surrounding road network*".

It is important to note that the subject site is located in a low volume/ low speed environment. As noted in Section 2 above, the peak traffic volume of Ascot Drive is likely to be around 2 to 3 vehicles per minute on average. This provides a safe crossing environment for pedestrians from the footpath opposite the site. This is no different to other businesses fronting onto Ascot Drive.

The site is well serviced for pedestrian and cyclists as follows:

- On road bicycle lanes are provided in Huntingfield Road adjacent to the Huntingfield park and ride facilities.
- On road bicycle lanes are provided in Channel Highway south of the Huntingfield roundabout.
- On road bicycle lanes are provided in the Kingston Bypass, connecting to off-road bicycle facilities.
- On road bicycle lanes are provided in Channel Highway north of the Huntingfield roundabout.
- A shared path facility runs parallel to Coffee Court, and connects to a shared path north of Algona Road (connecting via an underpass beneath Algona Road).

Alternative parking arrangements

Alternative parking arrangements are not required.

Shared parking

It is likely that some members of the proposed gymnasium will work at a nearby business. It is almost impossible to ascertain the extent to which this may occur. To some extent it will relate to attractiveness of the proposed development for workers in the surrounding area. It is a well-established principle in traffic engineering practice that shared parking occurs.

The development does not rely on shared parking principles, it simply notes that it is likely to occur.

Please contact me on 0437 366 040 if you require any further information.

Yours sincerely,

Keith Midson BE MTraffic MTransport FIEAust CPEng EngExec NER

DIRECTOR
Midson Traffic Pty Ltd