Report
Prepared for
LK Property Group

1 June 2018

Proposed Mixed-Use Development

622-642 Nicholson Street, Fitzroy
North
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<th>Checked By</th>
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# Table of contents:

<table>
<thead>
<tr>
<th>Chapter / Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Introduction:</td>
<td>5</td>
</tr>
<tr>
<td><strong>2</strong> Existing Conditions:</td>
<td>6</td>
</tr>
<tr>
<td>2.1 Site Location</td>
<td>6</td>
</tr>
<tr>
<td>2.2 Road Network</td>
<td>7</td>
</tr>
<tr>
<td>2.3 Traffic Conditions</td>
<td>11</td>
</tr>
<tr>
<td>2.4 Parking Conditions</td>
<td>12</td>
</tr>
<tr>
<td>2.5 Sustainable Transport</td>
<td>14</td>
</tr>
<tr>
<td>2.6 Crash Analysis</td>
<td>17</td>
</tr>
<tr>
<td><strong>3</strong> The Proposal:</td>
<td>18</td>
</tr>
<tr>
<td><strong>4</strong> Car Parking Assessment:</td>
<td>19</td>
</tr>
<tr>
<td>4.1 Planning Scheme Assessment</td>
<td>19</td>
</tr>
<tr>
<td>4.2 Car Parking Demand Assessment</td>
<td>20</td>
</tr>
<tr>
<td>4.3 Allowing Fewer Spaces to be provided</td>
<td>23</td>
</tr>
<tr>
<td>4.4 Adequacy of Parking Provision</td>
<td>26</td>
</tr>
<tr>
<td><strong>5</strong> Access and Car Parking Layout:</td>
<td>28</td>
</tr>
<tr>
<td>5.1 Clause 52.06 Design Standard Assessment</td>
<td>28</td>
</tr>
<tr>
<td>5.2 Swept Path Assessment</td>
<td>31</td>
</tr>
<tr>
<td><strong>6</strong> Bicycle Parking:</td>
<td>32</td>
</tr>
<tr>
<td>6.1 Clause 52.34 – Bicycle Parking Assessment</td>
<td>32</td>
</tr>
<tr>
<td><strong>7</strong> Loading Arrangements:</td>
<td>34</td>
</tr>
<tr>
<td>7.1 Loading and Unloading Arrangements</td>
<td>34</td>
</tr>
<tr>
<td>7.2 Waste Collection</td>
<td>35</td>
</tr>
<tr>
<td><strong>8</strong> Traffic Assessment:</td>
<td>36</td>
</tr>
<tr>
<td>8.1 Traffic Generation and Distribution</td>
<td>36</td>
</tr>
<tr>
<td><strong>9</strong> Conclusion:</td>
<td>39</td>
</tr>
</tbody>
</table>
Appendices:

Appendix A  Parking Survey Results
Appendix B  Swept Path Assessment
Appendix C  Bicycle Parking Specifications
Appendix D  Loading Arrangement
Appendix E  Turntable Specifications
Appendix F  Waste Collection Arrangement
1 Introduction:

Ratio Consultants was commissioned by LK Property Group to assess the traffic and parking implications of the proposed mixed-use development at 622-642 Nicholson Street, Fitzroy.

This report has been prepared to address the traffic and parking needs of the proposed development and is based on surveys and observations in the vicinity of the site and on previous studies of similar developments elsewhere in Melbourne.
2 Existing Conditions:

2.1 Site Location

The site of the proposed development is located on the eastern side of Nicholson Street, between Reid Street and Bik Lane, in Fitzroy North. The site's location relative to the surrounding road network is shown in Figure 2.1 below.

Figure 2.1: Site Location

The subject site is essentially rectangular in shape with frontage to Nicholson Street of 45.55 metres, a maximum depth of 41.28 metres, and an overall site area of approximately 1,834 sqm.

The site currently comprises a four-storey building which is occupied by a function centre (Moonlight Receptions). Vehicle access to the premises is currently provided via four separate crossovers connecting to/from Nicholson Street. Vehicle movement to/from the crossovers is limited to left-in / left-out movements due to the presence of a central median located along Nicholson Street.

The site is located within a Mixed-Use Zone (MUZ) and subject to an Environmental Audit Overlay (EAO). Land use within the vicinity of the site is a mixture of residential, commercial, entertainment/dining, and retail properties.

Some other key land uses within the vicinity of the site include:

- Ventura / National Bus Company, located approximately 300 metres north of the subject site.
- North Carlton Children's Centre, located approximately 300 metres west of the subject site.
- Edinburgh Gardens, located approximately 500 metres south-east of the subject site.
— Fitzroy North Primary School, located approximately 700 metres east of the site.
— Melbourne General Cemetery, located approximately 900 metres south-west of the subject site.
— Carlton North Primary School, located approximately 1.0km south-west of the subject site.
— Princes Hill Primary School, located approximately 1.1km north-west of the subject site.
— Brunswick South Primary School, located approximately 1.1km north-west of the subject site.

Figure 2.2 below shows an aerial view of the site and its surrounds.

**Figure 2.2: Aerial View of the Site and Surrounds**

Source: www.nearmap.com

### 2.2 Road Network

**Nicholson Street** is a Primary State Arterial Road under the care and management of VicRoads. It essentially runs in a north-south alignment between Bell Street, in Coburg and Spring Street, in Melbourne. Within the vicinity of the site, Nicholson Street has a carriageway width of approximately 24.0 metres, catering for two lanes of traffic in each direction, centre-of-the-road tram tracks, and kerbside parallel parking on both sides of the road. The road is classified as a 'Traffic Route', a 'Tram Priority Route' and a 'Pedestrian Priority Area' as per the VicRoads' SmartRoads Network (2012).

It has a posted speed limit is 60km/hr within the vicinity of the site and concrete footpaths are provided on both sides of the road.

Figure 2.3 shows a photograph of Nicholson Street adjacent to the subject site.
Reid Street is a municipal Local Road that runs in an east-west alignment between St Georges Road and its continuation as Richardson Street, west of Nicholson Street. Reid Street has a carriageway width of approximately 12.0 metres, accommodating one lane of traffic in each direction and kerbside parallel parking on both sides of the road. It has a posted speed limit of 40 km/hr, with speed humps provided at regular intervals along its length to control vehicle speeds.

Figure 2.4 shows a photograph of Reid Street proximate to the subject site.

**Figure 2.4 – Reid Street proximate to the subject site**
**Bik Lane** is a laneway that extends to the east from Nicholson Street for approximately 40 metres before changing direction to run in a north-south alignment. The laneway provides vehicle access to four properties fronting Nicholson Street and a residential apartment development and some commercial tenancies located at the eastern end of Bik Lane.

The east-west section of Bik Lane has a carriageway width of 5.65 metres and is sufficient to accommodate two-way vehicle movements. No parking is permitted along the length of Bik Lane. Figure 2.5 shows a photograph of the east-west section of Bik Lane.

**Figure 2.5 – East – West Section of Bik Lane**

The north-south section of Bik Lane has a narrower carriageway width of 4.4 metres and accommodates vehicle movements in one direction at a given time. Figure 2.6 shows a photograph of the north-south section of Bik Lane.
There is also a 3.5 metre wide laneway that extends north from Reid Street approximately 35 metres to the southern boundary of the subject site. The laneway currently does not provide vehicle access to the subject site. The laneway carries vehicle movements in one direction at a given time. Figure 2.7 shows a photograph of the laneway.

Figure 2.7 – Laneway to the South of the Subject Site
2.3 Traffic Conditions

Traffic Movement Survey

In order to determine the traffic conditions in the vicinity of the subject site, Ratio Consultants commissioned traffic movement surveys on Thursday 8\textsuperscript{th} February 2018 from 7:30am to 9:30am and 4:30pm to 6:30pm at the intersection of Bik Lane and Bik Lane.

The detailed survey results are presented in Figure 2.8.

Figure 2.8 – Thursday 8 February 2018 – Peak Hour Turning Movement Results

In summary, the survey results showed:

**AM Peak**

- The morning peak hour occurred between 8:00am and 9:00am when a total of 29 vehicle movements were recorded travelling through Bik Lane.
- The majority of movements were recorded departing Bik Lane towards Nicholson Street in the AM peak hour (20 movements) as opposed to entering Bik Lane (nine movements). A large proportion of this traffic was presumably associated with residents departing the apartment building located at the eastern end of Bik Lane.
- There was a total of two vehicle movements entering the north-south section of Bik Lane in the AM peak hour. No movements were recorded departing the north-south section of Bik Lane.

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622-642 Nicholson Street, Fitzroy North / Traffic Impact Assessment / 14843REPO2 / May 2018
PM Peak

— The afternoon peak hour occurred between 5:15pm and 6:15pm when a total of 44 vehicle movements were recorded at the intersection.
— The dominant movement in the PM peak hour was vehicles entering Bik Lane from Nicholson Street, presumably associated with residents accessing the apartment building located to the east of Bik Lane.
— No vehicles were recorded within the north-south section of Bik Lane during the PM peak hour.

On the basis of the surveys and by applying the generally accepted approximation that the daily level of traffic on a road is equivalent to approximately 10 times the peak hour volume, the east-west section of Bik Lane currently carries in the order of 400 vehicles per day (vpd), with minimal vehicle movements travelling along the north-south section of the laneway.

2.4 Parking Conditions

Ratio Consultants commissioned surveys of parking supply and demand on Thursday 8th February 2018 from 8:00am to 8:00pm and on Saturday 10th February 2018 between 8:00am and 4:00pm. The extent of the survey area is outlined in Figure 2.9, with detailed results presented in Tables A1 and A2 of Appendix A. The parking inventory reveals the supply of parking is predominately subject to short term restrictions (1/4P, 1/2P, 1P & 2P restrictions).

Figure 2.9 - Parking Survey Area
In summary, the survey results showed:

**Thursday 8 February 2018**

- There was observed to be a minimum of 208 and a maximum of 225 parking spaces within the survey area (depending on the time of day).
- The demand for parking was moderate to high with parking occupancies ranging between 48% and 74%.
- The peak hour occurred at 1:00pm, when a total of 165 publicly available car parking spaces were recorded occupied out of an available supply of 223 spaces, representing a parking occupancy of 74%. There was a minimum of 58 publicly available spaces at this time.

Graph 2.1 provides a graphical representation of the Thursday parking demands.

![Graph 2.1 - Parking demand survey results - Thursday 8th February 2018](image)

**Saturday 10 February 2018**

- There was observed to be a minimum of 224 and a maximum of 225 parking spaces within the survey area (depending on the time of day).
- The demand for parking was moderate to high during the Saturday survey period with parking occupancies ranging between 42% and 74%.
- The peak hour occurred at 2:00pm, when a total of 167 publicly available car parking spaces were recorded occupied out of an available supply of 225 spaces, representing a parking occupancy of 74%. There was a minimum of 58 publicly available spaces at this time.

Graph 2.2 provides a graphical representation of the Saturday parking demands.
Overall, the survey results indicate that the parking demand is generally moderate to high during weekdays and on Saturdays. The supply of parking is also subject to short-term restrictions which ensures a high turnover of parking. Overall, it is considered that there is spare parking capacity within the vicinity of the site to accommodate an increase in short-term car parking demand.

2.5 Sustainable Transport

Public Transport

The site has very good access to public transport services, as described in Table 2.1 and Table 2.2.

Table 2.1: Public Transport Services - Trams

<table>
<thead>
<tr>
<th>Route Number</th>
<th>Route Description</th>
<th>Nearest Stop</th>
<th>Walking Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>96</td>
<td>East Brunswick to St Kilda Beach</td>
<td>Intersection of Nicholson Street / Reid Street / Richardson Street</td>
<td>&lt;50 metres</td>
</tr>
<tr>
<td>11</td>
<td>West Preston to Victoria Harbour Docklands</td>
<td>Intersection of Alfred Crescent and St Georges Road</td>
<td>500 metres</td>
</tr>
<tr>
<td>1</td>
<td>East Coburg to South Melbourne Beach</td>
<td>Intersection of Lygon Street and Richardson Street</td>
<td>750 metres</td>
</tr>
</tbody>
</table>

Table 2.2 Public Transport Services - Buses

<table>
<thead>
<tr>
<th>Route Number</th>
<th>Route Description</th>
<th>Nearest Stop</th>
<th>Walking Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>504</td>
<td>Moonee Ponds to Clifton Hill via East Brunswick</td>
<td>Intersection of Nicholson Street / Reid Street / Richardson Street</td>
<td>75 metres</td>
</tr>
<tr>
<td>250</td>
<td>City (Queen Street) to La Trobe University</td>
<td>Intersection of Rathdowne Street and Richardson Street</td>
<td>500 metres</td>
</tr>
<tr>
<td>251</td>
<td>City (Queen Street) to Northland Shopping Centre</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: www.ptv.vic.gov.au

Rushall Railway Station is also located approximately 1.4km from the subject site, which is serviced by the South Morang Line.

Figure 2.10 presents the public transport services operating within convenient proximity of the site:

Figure 2.10: Public Transport Services Operating within the Vicinity of the Site

Source: ptv.vic.gov.au
Bicycle Network

The site also has excellent access to bicycle facilities, including:

- Capital City Trail (off-road shared path), located approximately 600 metres to the north of the subject site. Off-road shared paths are also provided throughout Edinburgh Gardens.
- On-road Bicycle Lanes along Reid Street, St Georges Road, Canning Street, Rathdowne Street, Drummond Street, Newry Street and Richardson Street; and
- Informal bicycle route along Nicholson Street, Rae Street, Scotchmer Street and Macpherson Street.

The sustainable transport facilities within close proximity to the site, including the bicycle network, are outlined in Figure 2.9 below.

Figure 2.9: Sustainable Transport Facilities within the Vicinity of the Site


Car Share

The subject site has convenient access to numerous share car pods operated by Flexicar and GoGet. A summary of the share car pods within approximately 250 metres of the site is provided in Table 2.3.
Table 2.3 - Car Share Pod Locations

<table>
<thead>
<tr>
<th>Operator</th>
<th>Location</th>
<th>Number of Cars</th>
<th>Approximate Walking Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexicar</td>
<td>Nicholson Street (near Reid Street)</td>
<td>1 car</td>
<td>100 metres</td>
</tr>
<tr>
<td></td>
<td>Scotchmer Street (near Nicholson Street)</td>
<td>1 car</td>
<td>250 metres</td>
</tr>
<tr>
<td>GoGet</td>
<td>Reid Street (near Nicholson Street)</td>
<td>1 car</td>
<td>50 metres</td>
</tr>
<tr>
<td></td>
<td>Nicholson Street (near Scotchmer Street)</td>
<td>1 car</td>
<td>200 metres</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>4 cars</strong></td>
<td></td>
</tr>
</tbody>
</table>

There are also several additional car share vehicles that are located beyond 250 metres of the subject site that could conveniently be utilised by users of the subject site.

2.6 Crash Analysis

A review has been conducted of VicRoads 'Crashstats' database for the most recent five-year period of available data from 1 January 2012 to 31 December 2016 for any reported casualty crashes along Nicholson Street, between Bik Lane and Reid Street, inclusive of the intersections.

The crash search revealed there has been nine casualty crashes within the search area. The crashes are summarised below:

- Eight crashes were recorded at the intersection of Nicholson Street and Reid Street, as follows:
  - One 'out of control on carriageway (on straight)' type crash resulting in one 'serious' type injury.
  - Three 'right through' type crashes resulting in four 'other' type injuries.
  - Three 'cross traffic (intersections only)' type crashes occurred resulting in one 'serious' and two 'other' type injuries.
  - One 'ped near side hit by vehicle from right' type crash resulting in one 'serious' type injury.
- One 'rear end (vehicles in same lane)' type crash occurred on Nicholson Street, fronting 620 Nicholson Street, resulting in one 'other' type injury.
- No crashes were recorded along Bik Lane.

Given the road classifications and associated traffic volumes, it is considered that the road network is operating in a relatively safe manner.
It is proposed to demolish the existing building on-site and construct a 10-storey mixed-use development on the site located at 622-642 Nicholson Street, Fitzroy. More specifically, the development comprises the following:

- A boutique supermarket with a floor area of approximately 1,390sqm on ground floor (inclusive of back of house areas).
- A bottle shop with a floor area of approximately 120sqm on ground floor.
- A medical centre on the first floor, accommodating 10 practitioners and comprising a floor area of approximately 1,710sqm.
- Office use, with a combined floor area of 8,471sqm across eight floors.
- A total of 157 car parking spaces located within three levels of basement car parking.
- A loading dock servicing the supermarket on ground floor accessed via Bik Lane.
- A total of 125 bicycle parking spaces will be provided for the development.

Vehicular access to the site will be provided via a modified and widened crossover connecting to/from Nicholson Street located in the north-west corner of the subject site. The vehicle access point will provide direct and convenient access to the basement car park. The site access point will be designed to enable two-way simultaneous vehicle movements.

Pedestrian access to the development will be provided via an entrance located on the south-west corner of the subject site. A lift will be provided to access the medical centre and offices on the upper floors.

Waste and recyclables will be stored as follows:

- Waste for the supermarket will be stored with the loading area located in the north-east corner of ground floor.
- Waste for the medical centre and offices will be stored within a dedicated bin room located on Basement Level 1.

Waste will be collected on-site by a private contractor.
4.1 Planning Scheme Assessment

Parking requirements for developments are set out under Clause 52.06 of the Yarra Planning Scheme. The purpose of the Clause, among other things, is:

- To ensure that car parking is provided in accordance with the State Planning Policy Framework and Local Planning Policy Framework.
- To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.
- To support sustainable transport alternatives to the motor car.
- To promote the efficient use of car parking spaces through the consolidation of car parking facilities.
- To ensure that car parking does not affect the amenity of the locality.
- To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

The number of car spaces required for a number of uses is listed under Table 1 of Clause 52.06-5. The application of the relevant rates is detailed in Table 4.1.

**Table 4.1: Car Parking Requirements – Clause 52.06-5**

<table>
<thead>
<tr>
<th>Use</th>
<th>Size/Number</th>
<th>Statutory Parking Rate</th>
<th>Statutory Requirement</th>
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</thead>
<tbody>
<tr>
<td>Supermarket</td>
<td>1,390 sqm</td>
<td>5 spaces to each 100sqm of leasable floor area</td>
<td>69 spaces</td>
</tr>
<tr>
<td>Bottle Shop</td>
<td>120 sqm</td>
<td>4 spaces to each 100sqm of leasable floor area</td>
<td>4 spaces</td>
</tr>
<tr>
<td>Office</td>
<td>8,471 sqm</td>
<td>3.5 spaces to each 100sqm of floor area</td>
<td>296 spaces</td>
</tr>
<tr>
<td>Medical Centre</td>
<td>10 practitioners</td>
<td>5 spaces to the first person providing health services plus 3 spaces to every other person providing health services</td>
<td>32 spaces</td>
</tr>
<tr>
<td><strong>Total Statutory Car Parking Requirement</strong></td>
<td><strong>401 spaces</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Rounded down to the nearest whole number in accordance with Clause 52.06-5*

On the basis of the above, the proposal has a statutory requirement to provide 401 car spaces. A total of 157 car spaces are proposed to be provided on-site, allocated as shown in Table 4.2.

**Table 4.2: Car Parking Allocation**

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Parking Requirement</th>
<th>Parking Supply</th>
<th>Statutory Reduction / Surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supermarket</td>
<td>69 spaces</td>
<td>42 spaces</td>
<td>27 space reduction</td>
</tr>
<tr>
<td>Bottle Shop</td>
<td>4 spaces</td>
<td>4 spaces</td>
<td>-</td>
</tr>
<tr>
<td>Office</td>
<td>296 spaces</td>
<td>88 spaces</td>
<td>208 space reduction</td>
</tr>
</tbody>
</table>
## 4.2 Car Parking Demand Assessment

Clause 52.06-6 sets out the factors to be considered when preparing a Car Parking Demand Assessment. These factors are listed below:

- The variation of car parking demand likely to be generated by the proposed use.
- The short-stay and long-stay car parking demand likely to be generated by the proposed use over time.
- The availability of public transport in the locality of the land.
- The convenience of pedestrian and cyclist access to the land.
- An empirical assessment or case study.

Those factors relevant to this assessment are discussed in more detail below:

### Public Transport in the Locality

The site has very good access to a range of public transport services with tram and bus services operating within very close proximity of the subject site. In particular, Tram Route 96 provides very convenient public transport access with the closest stop located within 50 metres along Nicholson Street. Tram Routes 1, 6, 11 and Bus Routes 250, 251 and 504 all operate within 500 metres of the subject site. These services are outlined in more detail in Section 2.5.

Given the very good access to sustainable transport options, employees, customers and visitors of the site are able to travel to and from the site without relying on the use of a private motor vehicle.

### The Convenience of Pedestrian and Cyclist Access to the Site

Footpaths are provided on both sides of all roads within the vicinity of the site, which provides a link to the nearby public transport services. In addition, the site has excellent access to nearby bicycle facilities, including:

- Capital City Trail (off-road shared path), located approximately 600 metres to the north of the subject site.
- On-road Bicycle Lanes along Reid Street, St Georges Road, Canning Street, Rathdowne Street, Drummond Street, Newry Street and Richardson Street; and
- Informal bicycle route along Nicholson Street, Rae Street, Scotchmer Street and Macpherson Street.
These facilities provide a viable means of alternative sustainable transport that will reduce future reliance on private motor vehicles.

The Provision of Bicycle Parking and End of Trip Facilities for Cyclists

The proposal includes a generous provision of 125 bicycle spaces. These facilities will help to encourage visitors, staff and customers to cycle to and from the site and will reduce the dependence on the private motor vehicle.

The Likelihood of Multi-Purpose Trips Within the Locality

As discussed in Practice Note 22 – Using the Car Parking Provisions, in some situations a trip will serve more than one function, and this will tend to reduce the need for car parking. Given the location of the subject site, conveniently located along Nicholson Street, it is expected that some customers of supermarket, will be local workers/residents who have already travelled to the area for work/live within the nearby vicinity.

Access to Car Share Facilities

As discussed in Section 2.5, there are four car share pods located within very close proximity to the subject site (within 250 metres). In particular, these vehicles can be utilised by staff of the office component of the development who are not provided with an on-site car parking space, for day-to-day errands such as attending meetings.

Supermarket Parking Demand

Ratio Consultants and other traffic engineering consultancies have undertaken car parking surveys of several supermarkets within Metropolitan Melbourne, with recorded parking demands generally in the range of 3.0 to 5.0 spaces per 100 square metres, inclusive of staff parking demands.

The case study data undertaken is based on supermarkets with a range of floor areas, including boutique style supermarkets of 2,000sqm (which is similar sized to the supermarket component of the subject site) and larger supermarkets of 4,000sqm.

It is considered that the application of a rate of 3.0 spaces per 100sqm of floor area, inclusive of 1.0 space per 100sqm generated by staff, provides a suitable estimate of the supermarket parking generation, based on the following:

— The small scale 'boutique' style supermarket is primarily anticipated to service the local residential catchment area within the immediate vicinity of the site. Accordingly, it is anticipated that a significant proportion of supermarket trade will access the site by walking, cycling or utilising public transport.
— The site has very good access to sustainable transport modes which will facilitate public transport, walking and cycling as a mode of transport to the site.
— The empirical data suggests that 'boutique' style supermarkets within inner city Melbourne typically generate peak parking demand within the range of 3.0 spaces per 100sqm of floor area.

Application of the above rates to the 1,390sqm of supermarket floor area results in a forecast staff parking 14 spaces. Customer parking generates the remaining demand of up to 28 spaces.
The proposal provides a total of 42 car parking spaces for the supermarket, which is sufficient to accommodate the estimated parking demand associated with both staff and customers.

**Bottle Shop Parking Demand**

Ratio has undertaken research into the parking generation rates of several shop tenancies in metropolitan areas. Numerous empirical studies across Melbourne confirm that average parking generation across a group of shop tenancies falls within the range of 3 - 4 spaces per 100sqm of floor area.

Based on the empirical evidence, and in consideration of the site's location, access to alternative transport and other factors, it is considered that the application of a rate of 3.0 spaces per 100sqm of floor area provides a suitable estimate of the bottle shop parking generation for the proposal and is consistent with the rates proposed for the supermarket aspect of the proposal.

The above surveys have also consistently demonstrated that staff of small shop tenancies typically generate parking demand at a rate of one space per 100sqm of floor area. Application of the above rates to the 120 sqm of floor area results in a forecast staff parking demand of one space.

Customer parking generates the remaining demand of between two and three spaces.

The proposal provides a total of four car parking spaces for the bottle shop, which is sufficient to accommodate the estimated parking demand associated with both staff and customers.

**Medical Centre Parking Demand**

Given the site's location, access to alternative transport, suppressed provision of on-site car parking and nature and availability of the surrounding on-street parking demand, it is considered that the parking demand generated by the proposed medical centre component may be lower than what the statutory rate of Clause 52.06-5 of the Yarra Planning Scheme suggests.

As with the supermarket and bottle shop components of the development, the medical centre is also anticipated to primarily service the local residential catchment area within the immediate vicinity of the site which will encourage walking, cycling and public transport and decrease patient and staff reliance on private motor vehicles.

Notwithstanding the above, the Planning Scheme rate has conservatively been adopted to determine the peak parking demand generated by the medical centre. Based on 10 practitioners, the medical centre could be expected to generate a peak parking demand of up to 32 car parking spaces.

Given that a total of 23 car parking spaces are allocated on-site for the medical centre, the medical centre could generate a demand of up to nine car parking spaces that would need to be accommodated by the surrounding on-street parking. This overflow parking would be associated with patients, as staff of the medical centre are allocated parking.

**Office Car Parking Demand**

Reference is made in relation to research undertaken by Cardno Pty Ltd into the parking generation rate for an office development located at 511 Church Street, Richmond during May 2016. The results of the survey...
demonstrated that the peak car parking rate generated by the office during weekday periods was 1.76 car spaces per 100sqm, which is well below the statutory parking rate of 3.5 spaces per 100sqm.

The site surveyed is considered to display several similar characteristics to the subject site, given its location within the City of Yarra and access to sustainable modes of transport.

Furthermore, the reduced parking provision of the proposal (88 car spaces for 8,471sqm of office at 1.04 car spaces per 100sqm) and the restricted nature of on-street parking within the vicinity of the site, is expected to further reduce the car parking demand generated by the office component of the proposed development.

On this basis, the office component development is not expected to generate any off-site car parking demand and will encourage staff who are not provided with an on-site car parking space to use alternative transport means such as walking, cycling and public transport.

Summary

Table 4.4 presents a summary of the anticipated car parking demand generated by the different uses of the development.

Table 4.4: Car Parking Demand Summary

<table>
<thead>
<tr>
<th>User Group</th>
<th>Car Parking Demand</th>
<th>Car Parking Provision</th>
<th>Estimated off-site car parking demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supermarket</td>
<td>42 spaces</td>
<td>42 spaces</td>
<td>0 spaces</td>
</tr>
<tr>
<td>Bottle Shop</td>
<td>4 spaces</td>
<td>4 spaces</td>
<td>0 spaces</td>
</tr>
<tr>
<td>Office</td>
<td>88 spaces</td>
<td>88 spaces</td>
<td>0 spaces</td>
</tr>
<tr>
<td>Medical Centre</td>
<td>32 spaces</td>
<td>23 spaces</td>
<td>Up to 9 spaces</td>
</tr>
<tr>
<td>Total</td>
<td>166 spaces</td>
<td>157 spaces</td>
<td>Up to 9 spaces</td>
</tr>
</tbody>
</table>

On the basis of Table 4.4, it is considered that sufficient car parking is provided on-site to meet the demands generated by the office and supermarket components of the development.

The table also demonstrates that there may be an overflow parking demand associated with patients of up to nine spaces that would need to be accommodated by the surrounding road network.

4.3 Allowing Fewer Spaces to be provided

Clause 52.06-6 sets out the factors to be considered when determining the appropriateness of allowing fewer car parking spaces to be provided. Some of the relevant factors for this case are listed below:

- The Car Parking Demand Assessment.
- Relevant Local Policy.
- The availability of alternative car parking in the locality of the land.
- Access to or provision of alternative transport modes to and from the land.
- Any car parking deficiency associated with the existing use of the land.
— Any other relevant consideration.
Those factors relevant to this assessment are discussed in more detail below:

Relevant Local Policy

Clause 21.06 of the Yarra Planning Scheme outlines the relevant Local Planning Policies that relate to transport and parking implications of this proposal. Broadly, Clause 21.06 outlines Yarra’s aims to reduce car dependence by promoting walking, cycling and public transport.

It includes a number of strategies that aim to achieve these goals; the following are the key strategies relevant to this proposal:

— Improve pedestrian and cycling links in association with new development where possible.
— Require new development that generates high numbers of trips to be easily accessible by public transport.
— Require all new large developments to prepare and implement integrated transport plans to reduce the use of private cars and to encourage walking, cycling and public transport.

Key reference documents are the City of Yarra’s Strategic Transport Statement and the Encouraging and Increasing Walking Strategy.

The Strategic Transport Statement outlines Yarra’s broad vision for sustainable transport and places emphasis on encouraging walking, cycling and public transports. It identifies Yarra’s transport mode hierarchy, as follows:

More sustainable transport modes:
1. Pedestrians
2. Cyclists
3. Tram
4. Bus / Train
5. Taxi users / car sharers

Less sustainable transport modes:
6. Freight vehicles
7. Motorcyclists
8. Multiple occupants local traffic
9. Single occupants local traffic
10. Multiple occupants through traffic
11. Single occupant through traffic

The statement notes that this hierarchy should be applied to all decision making and actions related to transport. In addition, the statement identifies a number of Strategic Transport Objectives and Actions (STOs), as relevant:

— STO 1. Create a city which is a great and safe place to walk and increase the numbers of those walking in Yarra.
— STO 2. Create the most bicycle friendly city in Australia and increase the numbers of those cycling in Yarra.
— STO 5. Ensure Council’s response to parking demand is based on Yarra’s parking hierarchy and sustainable transport principles.

The Increasing Walking Strategy outlines Yarra’s desire to encouraging walking by improving connectivity, safety and information.
The proposal is considered to be in-line with the strategic intent of the City of Yarra's Planning Scheme on the basis of the following:

- The reduced provision of on-site parking will reduce car dependence by promoting walking, cycling and public transport in accordance with Clause 21.06 of the Yarra Planning Scheme.
- There is a generous provision of on-site bicycle parking which will encourage cycling in accordance with the strategy outlined under Clause 21.06 and STO 2 of the City of Yarra's Strategic Transport Statement.
- The proposal has good connections to the existing pedestrian footpaths which will promote working to/from the site in accordance with STO 1 of the City of Yarra's Strategic Transport Statement and the City of Yarra's Increasing Walking Strategy.

**Availability of Car Parking**

As outlined in Section 2.4, the availability and nature of the on-street parking in the vicinity of the site that could potentially be utilised by long term-users of the development, such as staff of the office, is highly constrained given that the majority of on-street parking is subject to short-term parking restrictions (1/2P to 2P controls). This results in a strong disincentive for future employees without an on-site car space to travel to work via a private motor vehicle and will encourage alternative modes of transport.

Conversely, the short-term parking restrictions within the surrounding on-street parking will ensure any short-term visitors / patients of the development are able to find a parking space within close proximity to the subject site even during periods of peak activity.

As discussed in the Car Parking Demand Assessment in Section 4.2, it is anticipated that there could be an overflow parking demand of up to nine spaces (associated with patients of the medical centre) during periods of peak activity that would need to be accommodated by the surrounding road network.

The survey results demonstrate that during weekday business hours at least 58 spaces are available within convenient walking distance to the site. The minimum number of available spaces increased to 101 spaces during weekday evenings.

During the Saturday survey period, the parking surveys suggest that there were at least 58 spaces available within convenient walking distance to the site.

Accordingly, it is considered that any short-term users of the development can comfortably be accommodated in suitable off-site parking locations within convenient proximity of the site without adversely impacting on current parking conditions in the precinct.

**Any Car Parking Deficiency Associated with the Existing Use of the Land**

As discussed in Section 2.1, the site is currently occupied by an existing function centre, which is permitted to accommodate a maximum of 590 patrons on-site. Application of the parking rate for a function centre (Place of Assembly) under Table 1 of Clause 52.06-5 of the Planning Scheme (0.3 spaces to each patron permitted) generates a requirement to provide a total of 177 car parking spaces.
A total of 45 car parking spaces are currently provided on-site, which equates to a current deficiency of 132 car spaces associated with the existing use. This requirement is largely met by the surrounding on-street parking.

As discussed in the Car Parking Demand assessment, it is anticipated that the proposed development will generate an off-site parking demand of up to nine spaces that will need to be accommodated by the surrounding on-street parking. Accordingly, it is anticipated that the proposed development will have less reliance on on-street parking than the existing use of the building.

Any Other Relevant Consideration

The applicant is committed to preparing and implementing a Green Travel Plan (GTP) for the on-going operation of the proposed development. The preparation of a GTP is in-line with current Government policy and the City of Yarra’s Strategic Transport Statement. The plan will aim to reduce the reliance on private car mode by encouraging and facilitating an increase in walking, cycling and public transport modes.

4.4 Adequacy of Parking Provision

A total of 157 car parking spaces will be provided on-site as shown in Table 4.2.

In summary, it is considered that the proposed provision of car parking is adequate for the following reasons.

— The site is well located to take advantage of access to sustainable transport alternatives, such as nearby public transport services, on and off-road bicycle lanes, and the pedestrian footpath network.
— Based on empirical data, it is considered that sufficient car parking is provided on-site to meet the peak parking demands generated by the supermarket and bottle shop components of the development.
— On-street parking in the vicinity of the site is sufficiently protected by parking restrictions during weekday business hours to discourage staff of the proposed development from choosing private motor vehicles for travel to and from the site.
— Based on empirical data and the rates outlined under Clause 52.05-5 of the Yarra Planning Scheme, it is anticipated that the medical centre may generate an overflow demand of up to nine car parking spaces during periods of peak activity that would need to be accommodated by the surrounding on-street car parking. This overflow demand would be associated with patients of the medical centre, with sufficient parking provided on-site for medical centre staff.
— The parking surveys indicate that sufficient on-street parking is available at all times to accommodate the short-term parking demand associated with any overflow patients associated with the medical centre.
— The proposal includes a generous provision of bicycle parking which will encourage staff towards an alternative method of transport to/from the site.
— It is anticipated the proposed development will be less reliant on on-street parking than the existing use of the building, which is currently deficient in car parking.
— Multi-purpose trips will reduce the need for car parking.
— The development helps to achieve the objectives sought by Local Policy by reducing the dependence on private motor vehicles.
— Car share vehicles are provided within the vicinity of the site which can be utilised by staff who do not drive to work, for day-to-day errands such as attending meetings.

On the basis of the reasons discussed above, it is considered that the proposed level of car parking is suitable for the nature and scale of the proposed development.
5.1 Clause 52.06 Design Standard Assessment

The proposed vehicular access arrangements and car park layout have been designed in general accordance with the objectives and design requirements of Clause 52.06-9 of the Yarra Planning Scheme, and in accordance with the relevant sections of AS/NZS 2890.1:2004.

An assessment against the relevant design standards of Clause 52.06-9 of the Planning Scheme is provided below:

### Design Standard 1 – Accessways

Vehicular access to the site will be provided via a modified and widened crossover connecting to/from Nicholson Street located in the north-west corner of the subject site. The vehicle access point will provide direct and convenient access to the basement car park. The site access point will be designed to enable two-way simultaneous vehicle movements.

A secondary access point will be provided via Bik Lane located in the north-east corner of the subject site. This access point will be utilised by service vehicles to access the loading area.

All other redundant vehicle crossovers will be reinstated with kerb and channel to the satisfaction of the Responsible Authority.

Design Standard 1 of Clause 52.06-9 relates to the design of accessways. The requirements of Design Standard 1 are assessed against the proposal in Table 5.1 below:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Must be at least 3m wide.</td>
<td>Satisfied – All accessways have been designed with a minimum width of 5.5 metres which is sufficient to accommodate two-way simultaneous vehicle movements.</td>
</tr>
<tr>
<td>Have an internal radius of at least 4m at changes of direction or intersection or be at least 4.2m wide.</td>
<td>Satisfied – All accessways are at least 4.2 metres wide at changes of direction.</td>
</tr>
<tr>
<td>Allow vehicles parked in the last space of a dead-end accessway in public car parks to exit in a forward direction with one manoeuvre.</td>
<td>Satisfied – All vehicles in the last space of a dead-end accessway in the public section of the car park can depart the car parking in a forward direction with one manoeuvre. It is noted that there are two spaces located at the end of the aisle within Basement 3, which are required to perform a corrective manoeuvre to depart the car spaces. Given that these car parking spaces are located within the private section of the car park and AS/NZS 2890.1:2004 permits corrective manoeuvre for employees (User Class 1a), this is considered to be an appropriate outcome and in accordance with the relevant standards.</td>
</tr>
</tbody>
</table>
Provide at least 2.1m headroom beneath overhead obstructions, calculated for a vehicle with a wheel base of 2.8m.  
Satisfied - A minimum height clearance of 2.1 metres has been provided throughout the car parking area. A height clearance of 4.5 metres has been provided within the loading bay which is in accordance with AS 2890.2:2002 to accommodate 8.8-metre-long service vehicles.

If the accessway serves four or more car spaces or connects to a road in a Road Zone, the accessway must be designed so that cars can exit the site in a forward direction.  
Satisfied - All vehicles can depart the site in a forward direction.

Provide a passing area at the entrance at least 5m wide and 7m long if the accessway serves ten or more car parking spaces and is either more than 50m long or connects to a road in a Road Zone.  
Satisfied - The entrance ramp has a width of 6.1 metres (inclusive of 300mm wide kerbs on either side) for its entire length (in excess of 7.0 metres) allowing two-way simultaneous vehicle flow. Accordingly, it is considered that this requirement has been satisfied.

Have a corner splay or area at least 50% clear of visual obstructions extending at least 2m along the frontage road from the edge of an exit lane and 2.5m along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road. The area clear of visual obstructions may include an adjacent entry or exit lane where more than one lane is provided, or adjacent landscaped areas, provided the landscaping in those areas is less than 900mm in height.  
Satisfied - A pedestrian sight triangle is unable to be provided adjacent to the egress lane of the accessway due to the built form of the supermarket to the south. Accordingly, it is proposed to provide a transparent window within the supermarket (with the dimensions of a pedestrian sight triangle) to enable departing vehicles a clear view of pedestrians walking along the Nicholson Street footpath. This is considered to be an acceptable arrangement and accord with this requirement.

If an accessway to four or more car parking spaces is from land in a Road Zone, the access to the car spaces must be at least 6m from the road carriageway.  
Satisfied - Access to the car parking spaces is at least 6 metres from the road carriageway.

If entry to the car space is from a road, the width of the accessway may include the road.  
N/A - entry from car spaces is not directly from a road.

**Design Standard 2 - Car Parking Spaces**

It is proposed to provide a total of 157 car parking spaces located on-site, arranged as shown in Table 5.2 below:

**Table 5.2 – Location of Car Parking Spaces**

<table>
<thead>
<tr>
<th>Level</th>
<th>No. of Car Parking Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basement 1</td>
<td>43 spaces</td>
</tr>
<tr>
<td>Basement 2</td>
<td>53 spaces</td>
</tr>
<tr>
<td>Basement 3</td>
<td>61 spaces</td>
</tr>
<tr>
<td>TOTAL</td>
<td>157 spaces</td>
</tr>
</tbody>
</table>
Design Standard 2 of Clause 52.06-9 relates to the design of car parking spaces. The requirements of Design Standard 2 are assessed against the proposal in Table 5.3 below:

### Table 5.3: Design Standard 2 Assessment – Car Parking Spaces

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car parking spaces and accessways must have the minimum dimensions as outlined in Table 2 of Design Standard 2.</td>
<td>Satisfied – All car parking spaces have been dimensioned in accordance with Table 2 of Design Standard 2.</td>
</tr>
<tr>
<td>A wall, fence, column, tree, tree guard or any other structure that abuts a car space must not encroach into the area marked ‘clearance required’ on Diagram 1 of Design Standard 2, other than:</td>
<td>Satisfied – Columns have been located in accordance with Diagram 1 of Design Standard 2.</td>
</tr>
<tr>
<td>- A column, tree or tree guard, which may project into a space if it is within the area marked ‘tree or column permitted’ on Diagram 1.</td>
<td>Spaces located adjacent to an obstruction have been widened in accordance with Diagram 1 of Design Standard 2.</td>
</tr>
<tr>
<td>- A structure, which may project into the space if it is at least 2.1m above the space.</td>
<td></td>
</tr>
<tr>
<td>Car spaces in garages or carports must be at least 6m long and 3.5m wide for a single space and 5.5m wide for a double space measured inside the garage or carport.</td>
<td>N/A – No garages or car ports are proposed.</td>
</tr>
<tr>
<td>Where parking spaces are provided in tandem (one space behind the other) an additional 500mm in length must be provided between each space.</td>
<td>Satisfied – A clearance of 500mm has been provided between the front and rear car parking spaces arranged in tandem. All tandem car parking spaces will be allocated to the office use to ensure that the spaces can be appropriately managed.</td>
</tr>
<tr>
<td>Where two or more car parking spaces are provided for a dwelling, at least one space must be under cover.</td>
<td>N/A – No dwellings are proposed as part of the development.</td>
</tr>
<tr>
<td>Disabled car parking spaces must be designed in accordance with Australian Standard AS2890.6-2009 (disabled) and the Building Code of Australia. Disabled car parking spaces may encroach into an accessway width specified in Table 2 of Design Standard 2 by 500mm.</td>
<td>Satisfied – Four accessible spaces are located for the development, with two accessible spaces located on Basement 1 and two accessible spaces located on Basement 2. The accessible spaces provided are in accordance with the requirements of AS/NZS 2890.6:2009, with the spaces being 2.4 metres by 5.4 metres, with an adjacent shared area and associated bollard. The accessible spaces and adjacent shared areas encroach into the aisle by 500mm as is permitted under Design Standard 2 of Clause 52.06-9.</td>
</tr>
</tbody>
</table>

### Design Standard 3 - Gradients

The entrance ramp comprises the following gradients and transitions:

- Flat section from the property boundary for the first 7.8 metres.
- An initial 1:8 gradient for 2.0 metres from a RL of 33.20 metres;
- A midblock gradient of 1.6 for 16.80 metres; and
- A final 1:8 gradient for 2.0 metres to a RL of 29.90 metres.

The internal ramps (from Basement 1 to Basement 2 and from Basement 2 to Basement 3) will comprise the following gradients: