

Proposed Mixed-Use Development

**36-44 John Street,
Lidcombe**

s.96 TRAFFIC AND PARKING ASSESSMENT REPORT

27 November 2015

Ref 15788

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants 

Suite 6, 20 Young Street, Neutral Bay NSW 2089 - PO Box 1868, Neutral Bay NSW 2089
Ph: 9904 3224 Fax: 9904 3228, Email: varga@vtp.net.au

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1. INTRODUCTION

This report has been prepared to accompany a s.96 Application to Auburn City Council for a mixed-use development proposal to be located at 36-44 John Street, Lidcombe (Figures 1 and 2).

Council has previously granted deferred commencement for the construction of a new mixed-use development on the site, comprising 137 apartments plus 789m² of retail/commercial floor space (DA-294/2014). Off-street parking was previously approved for a total of 229 cars over five levels, including four basement levels. Construction of the building has commenced and is currently up to level 4.

The proposed amendments to the previously approved scheme involve the provision of an additional 4 apartments whilst retaining the 789m² of retail/commercial floor space. Off-street parking is proposed for a total of 231 cars in the already-constructed five car parking levels. The vehicular access, internal ramps and loading arrangements remain unchanged.

The purpose of this report is to assess the traffic and parking implications of the development proposal and to that end this report:

- describes the site and provides details of the development proposal
- reviews the road network in the vicinity of the site
- estimates the traffic generation potential of the development proposal
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed car parking and loading facilities for compliance with the relevant codes and standards
- assesses the adequacy and suitability of the quantum of off-street car parking and loading provided on the site.



2. PROPOSED DEVELOPMENT

Site

The subject site is located on the western side of John Street, in between Ann Street and Board Street. The site has a street frontage approximately 68m in length to John Street and approximately 40m in length to both Ann Street and Board Street. The site occupies an area of approximately 2,711m².

As mentioned in the foregoing, construction of the building has commenced and is currently up to level 4.

Previously Approved Development

Council has previously granted deferred commencement for the construction of a new mixed-use development on the site, comprising 137 apartments plus 789m² of retail/commercial floor space (DA-294/2014).

Off-street parking was previously approved for a total of 229 cars over five levels, including four basement levels.

Loading/servicing for the previously approved scheme was to be undertaken by a variety of light commercial vehicles up to and including 8.8m medium rigid trucks. The approved service area was to be located on the ground floor at the rear of the retail/commercial tenancies and large enough to accommodate an SRV truck and an MRV truck simultaneously. Vehicular access for the SRV trucks was to be provided via either of the abovementioned two-way driveways located in Ann Street or Board Street. Given the parallel parking arrangement for the MRV truck however, vehicular ingress was to be via Board Street, with vehicular egress to be via Ann Street.

Proposed Development

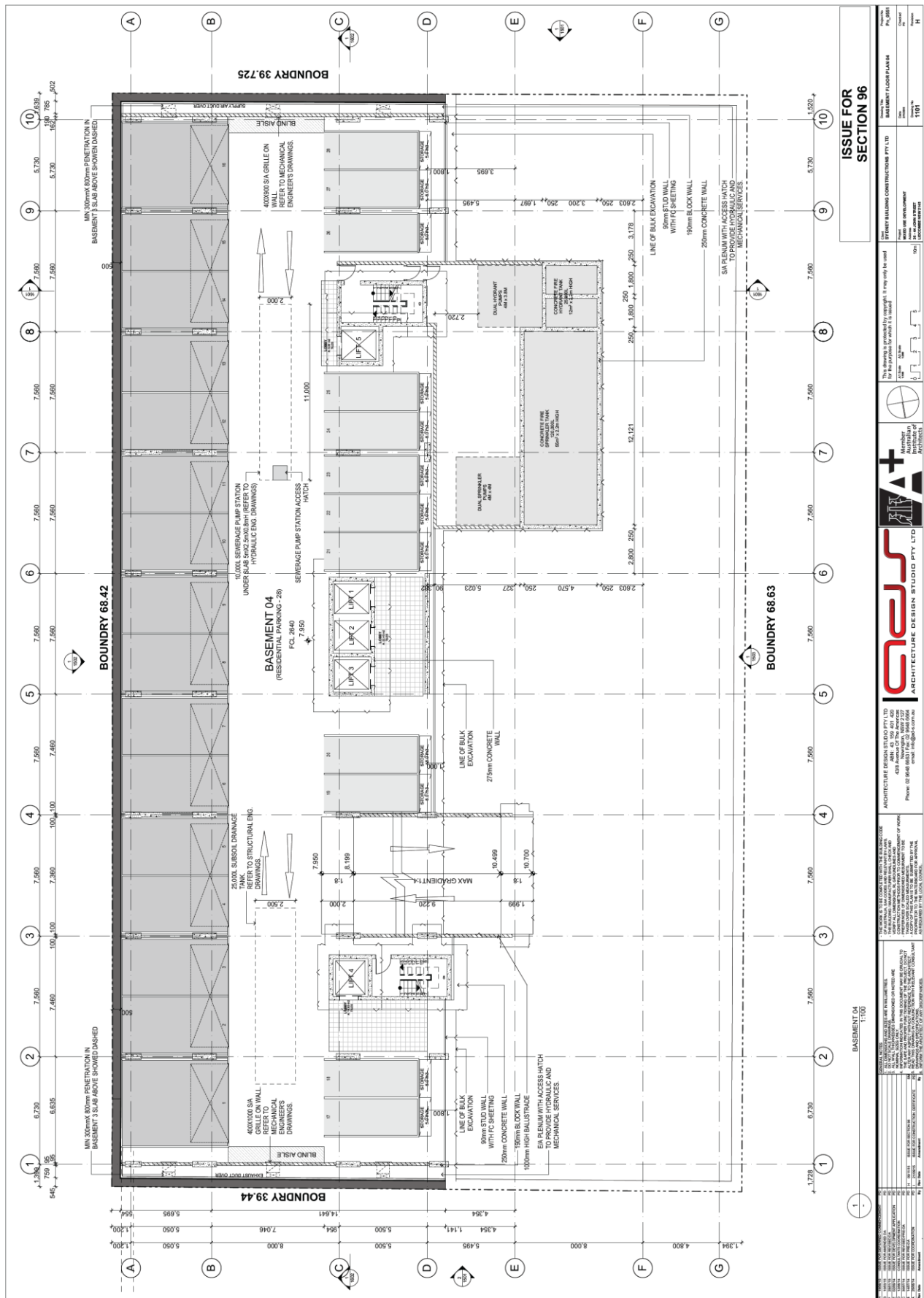
The proposed amendments to the previously approved scheme involve the construction of an additional 4 apartments, yielding a total of 141 apartments as follows:

One bedroom apartments:	17
Two bedroom apartments:	101
Three bedroom apartments:	19
Four bedroom apartments:	4
TOTAL APARTMENTS:	141

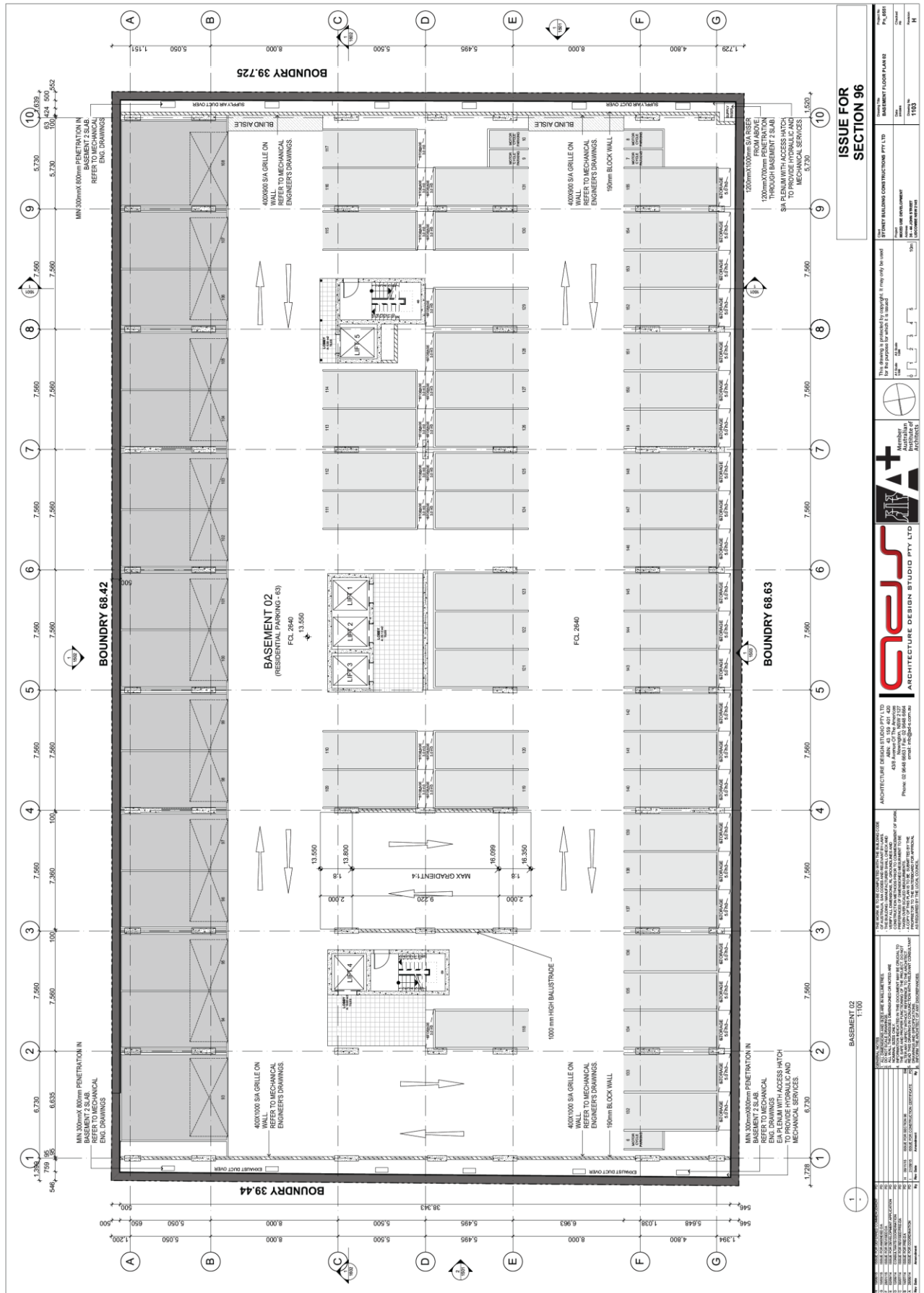
The floor area of the retail/commercial component remains unchanged at 789m².

Off-street parking is proposed for a total of 231 cars in the already-constructed five car parking levels. The vehicular access, internal ramps and loading arrangements remain unchanged.

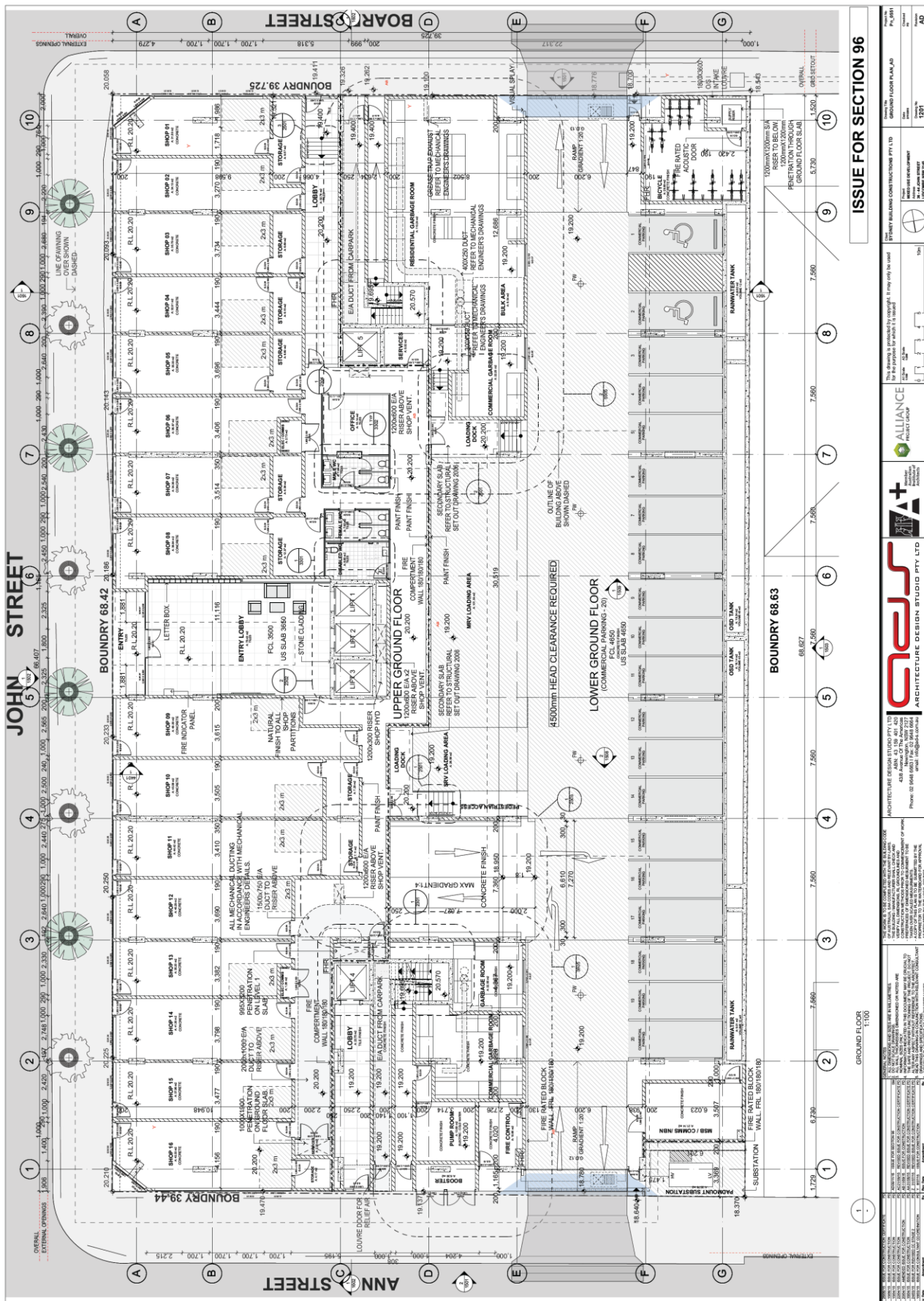
Plans of the proposed s.96 scheme have been prepared by *Architecture Design Studio Pty Ltd* and are reproduced in the following pages.











3. TRAFFIC ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

St Hilliers Road / Boorea Street / Olympic Drive / Joseph Street are classified by the RMS as *State Roads* which provide the key north-south road link in the area, linking Rookwood Road to Parramatta Road. It typically carries three traffic lanes in each direction in the vicinity of the site, with opposing traffic flows separated by a central median island. Clearway restrictions apply during commuter peak periods.

Church Street is classified by the RMS as a *Regional Road* which provides an east-west road link through the Lidcombe area. It typically carries one traffic lane in each direction in the vicinity of the site with kerbside parking generally permitted.

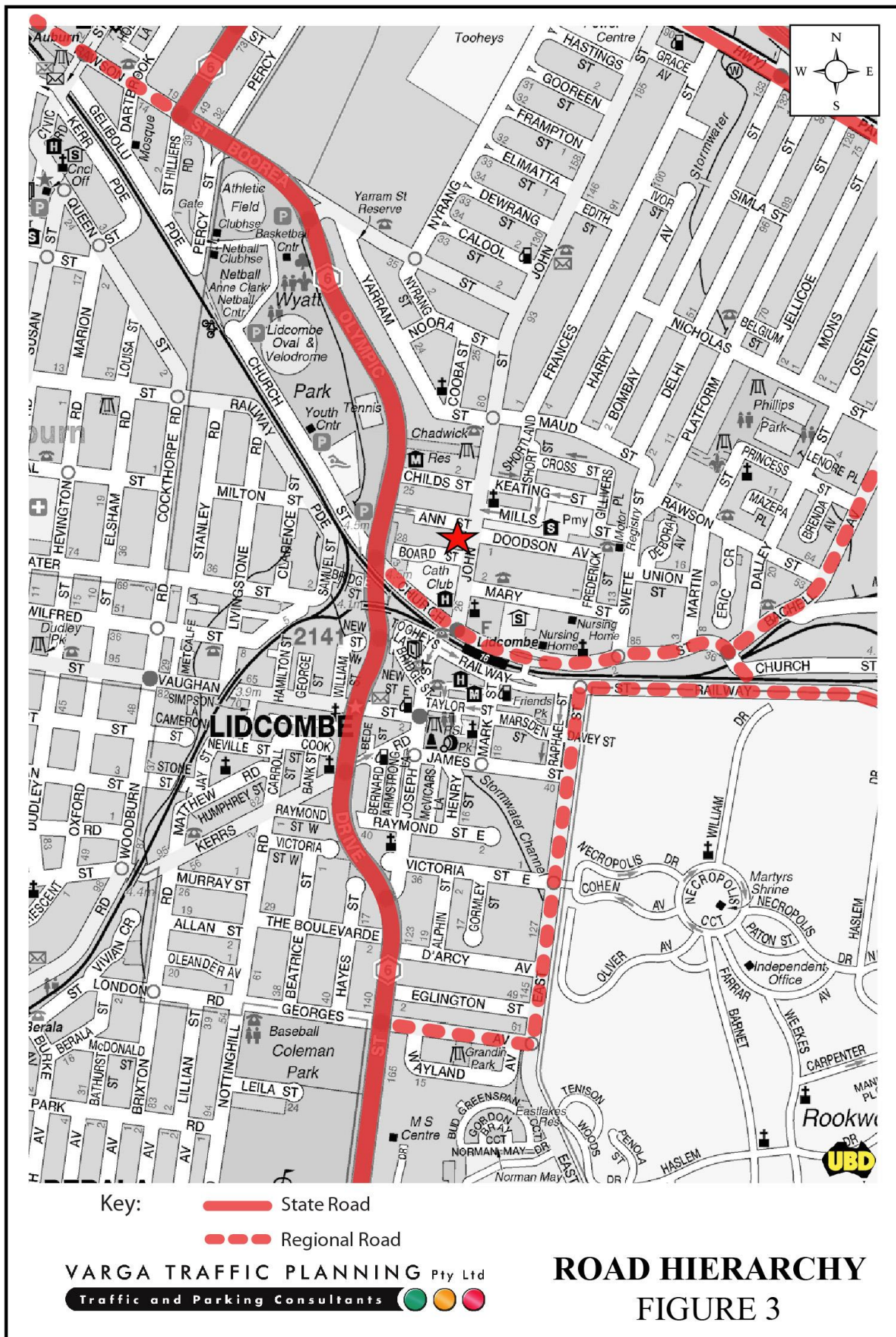
John Street is a local, unclassified road which performs the function of a north-south *collector route* through the Lidcombe area, linking Church Street to Parramatta Road. Kerbside parking is generally permitted on both sides of the road.

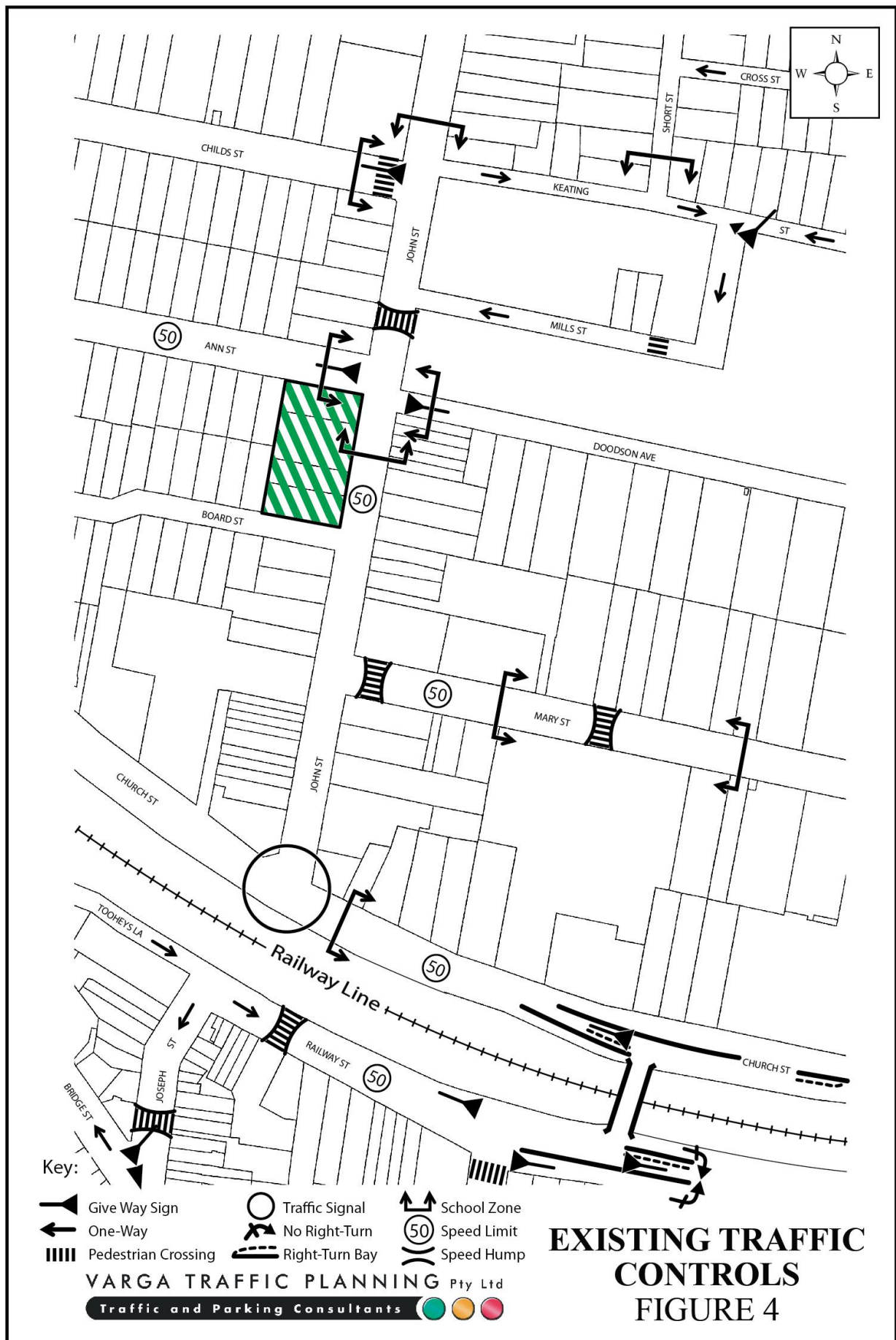
Ann Street is a local, unclassified road which is primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of the road.

Board Street is also a local, unclassified road which is primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on the northern side of the road only.

Existing Traffic Controls

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:





- a 50 km/h SPEED LIMIT which applies to John Street, Board Street, Ann Street and all other local roads in the area
- TRAFFIC SIGNALS in John Street where it intersects with Church Street
- a PERMANENT ROAD CLOSURE at the western end of Board Street which precludes movements into and out of Olympic Drive
- RAISED PEDESTRIAN CROSSINGS located at various locations throughout the local area including John Street and Mary Street
- SCHOOL ZONES located in John Street, just north of the site, and also Mary Street.

Projected Traffic Generation

An indication of the traffic generation potential of the development proposal is provided by reference to the Roads and Maritime Service's publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)*.

The RMS *Guidelines* are based on extensive surveys of a wide range of land uses and nominates the following traffic generation rates which are applicable to the development proposal:

Commercial Premises

2.0 peak hour vehicle trips per 100m² GFA

High Density Residential Flat Buildings in Sub-Regional Centres

0.29 peak hour vehicle trips per dwelling

The RMS *Guidelines* also make the following observation in respect of high density residential flat buildings:

Definition

A *high density residential flat building* refers to a building containing 20 or more dwellings. This does not include aged or disabled persons housing. *High density residential flat buildings* are usually more than 5 levels, have basement level carparking and are located in close proximity to public transport services. The building may contain a component of commercial use.

Factors

The above rates include visitors, staff, service/delivery and on-street movements such as taxis and pick-up/set-down activities.

The RMS *Guidelines* do not nominate a traffic generation rate for small, local shops, referring only to major regional shopping centres incorporating supermarkets and department stores. For the purposes of this assessment therefore, the traffic generation rate of “2.0 peak hour vehicle trips/100m² GFA” nominated in the RMS *Guidelines* for “commercial premises” has been adopted in respect of the retail component of the development proposal.

Application of the above traffic generation rates to the residential and retail/commercial components of the development proposal yields a traffic generation potential of approximately 57 vehicle trips per hour during commuter peak periods as set out below:

Projected Future Traffic Generation

Residential Apartments (141 Apartments):	40.9 peak hour vehicle trips
Retail/Commercial Tenancies (789m ²):	15.8 peak hour vehicle trips
TOTAL TRAFFIC GENERATION POTENTIAL:	56.7 peak hour vehicle trips

That projected future level of traffic generation potential should however, be offset or *discounted* by the volume of traffic which could reasonably be expected to be generated by the existing uses of the site, in order to determine the *nett increase (or decrease)* in traffic generation potential of the site.

Application of the above traffic generation rates to the residential and retail/commercial components of the previously approved scheme on the site yields a traffic generation potential of approximately 56 vehicle trips per hour during commuter peak periods as set out below:

Previously Approved Cumulative Traffic Generation Potential

Residential Apartments (137 Apartments):	39.7 peak hour vehicle trips
Retail/Commercial Tenancies (789m ²):	15.8 peak hour vehicle trips
TOTAL TRAFFIC GENERATION POTENTIAL:	55.5 peak hour vehicle trips

Accordingly, it is likely that the proposed development will result in a *nett increase* in the traffic generation potential of the site of just 1 vph as set out below:

**Projected Nett Increase in Peak Hour Traffic Generation Potential
of the Site as a consequence of the development proposal**

Projected Future Traffic Generation Potential:	56.7 vehicle trips
Less Previously Approved Cumulative Traffic Generation Potential:	-55.5 vehicle trips
NETT INCREASE IN TRAFFIC GENERATION POTENTIAL:	1.2 vehicle trips

That projected nett increase in the traffic generation potential of the site as a consequence of the s.96 development proposal is *statistically insignificant* and will clearly not have any unacceptable traffic implications in terms of road network capacity.

4. PARKING IMPLICATIONS

Existing Kerbside Parking Restrictions

The existing kerbside parking restrictions which apply to the road network in the vicinity of the site are illustrated on Figure 5 and comprise:

- generally ½ HOUR PARKING along both sides of John Street including along the site frontage
- ½ HOUR PARKING restrictions along the Board Street site frontage
- NO PARKING restrictions along the southern side of Board Street
- ½ HOUR PARKING restrictions along the Ann Street site frontage as well as opposite the site frontage
- generally UNRESTRICTED kerbside parking elsewhere along both sides of Ann Street and the northern side of Board Street.

Off-Street Parking Provisions

The off-street parking requirements applicable to the development proposal are specified in Council's *Development Control Plan 2010 – Parking and Loading* document in the following terms:

Residential Flat Buildings

1 bedroom apartment:	1 space per dwelling
2 bedrooms apartment:	1 space per dwelling
3 bedrooms apartment:	2 spaces per dwelling
4 bedrooms apartment:	2 spaces per dwelling
Visitor:	0.2 spaces per dwelling

Business & Office Premises

1 space per 40m² GFA

Retail Premises (including Shops)

1 space per 40m² GFA



Application of the above parking requirements to the residential and retail/commercial components of the development proposal yields an off-street parking requirement of 212 parking spaces as set out below:

Residential (141 Apartments):	164.0 spaces
Visitors:	28.2 spaces
Retail/Commercial Tenancies (789m ²):	19.7 spaces
TOTAL:	211.9 spaces

The proposed development makes provision for a total of 231 off-street parking spaces, comprising 182 residential spaces, 29 visitor spaces and 20 retail/commercial spaces, thereby satisfying Council's Parking Code requirements.

The geometric design layout of the proposed car parking facilities have been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1* in respect of parking bay dimensions, ramp gradients and aisle widths.

It is noted however that deferred commencement condition No.1C states that all visitor parking spaces shall be a minimum 2.6m wide.

Table 2.1 of *AS2890.1 – 2004* nominates a wide range of land uses and categorises them in a particular “user class”, however Table 2.1 does not specify a separate “user class” for residential visitor parking, referring only to residential parking. Figure 2.2 of *AS2890.1 – 2004* nominates a minimum car space width of 2.4m for residential 90° parking spaces.

It is understood that the retail/commercial spaces will be allocated to the tenants – i.e. no customer parking – noting that there are 19 retail/commercial spaces and 16 tenancies. Figure 2.2 of *AS2890.1 – 2004* nominates a minimum car space width of 2.4m *for employees* in 90° parking spaces.

Accordingly, all residential and retail/commercial parking spaces are 2.4m wide, with columns typically spaced every third parking space.

Reference to the column layout within the basement/ground floor car parking areas indicates that columns are aligned directly above each other on respective parking levels in order to provide maximum structural efficiency.

If visitor parking spaces were 2.6m wide then the column grid would be offset and expensive transfer beams would likely need to be introduced, possibly restricting overhead clearances. Visitor parking spaces at 2.4m wide are considered standard practice and will not result in any unacceptable parking implications.

In any event, the basement car park structure is complete and columns cannot be relocated.

In summary, the proposed parking and loading facilities satisfy the relevant requirements specified in both Council's Parking Code as well as the Australian Standards and it is therefore concluded that the proposed development will not have any unacceptable parking or loading implications.