CROWN GROUP

TRAFFIC REPORT FOR SECTION 75W MODIFICATIONS TO PROJECT APPROVAL FOR THE PROPOSED REDEVELOPMENT OF EASTLAKES SHOPPING CENTRE

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I. INTRODUCTION

- 1.1 Colston Budd Rogers and Kafes Pty Ltd has been commissioned by Crown Group Ltd to prepare a report examining the traffic implications of the Section 75W modifications to the Project Approval (MP09_0146) for the redevelopment of Eastlakes Shopping Centre. The site is located south of Gardeners Road at Eastlakes, as shown in Figure 1.
- 1.2 Project Approval was granted by the Planning Assessment Commission on 19 September 2013 for the construction of a mixed use development incorporating basement car parking, ground floor retail area, and residential development above, communal open space, public domain landscaping and associated infrastructure works. The approved development comprises:
 - 404 residential units (comprising some 7 studio units, 211 one bedroom units,
 177 two bedroom units, 8 three bedroom units and 1 four bedroom unit);
 - some 12,619m² GLA of retail area; and
 - a required parking provision of some 916 spaces.
- 1.3 The traffic effects of the approved mixed use development previously been assessed in a separate traffic report⁽¹⁾.

(1) "Transport and Accessibility Impact Assessment for Part 3A Application for the Proposed Redevelopment of Eastlakes Shopping Centre", July 2012, Colston Budd Hunt & Kafes Pty Ltd

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- 1.4 The Section 75W modifications to the approved development include changes to the northern site of the development, located on the northern side of Evans Avenue. These modifications include:
 - construction of five additional levels of residential units above Building 1B, resulting in an additional 21 residential units;
 - reconfiguration of retail area, resulting in an increase of some 467m² GLA; and
 - reconfiguration of on-site car parking and loading dock arrangements.
- 1.5 The implications of the proposed modifications are assessed in the following chapter.

2. IMPLICATIONS OF PROPOSED MODIFICATIONS

- 2.1 Our assessment of the implications of the proposed Section 75W modifications is set down through the following sections:
 - site location and road network:
 - approved development;
 - proposed modifications;
 - parking provision;
 - access, internal circulation and servicing;
 - □ traffic effects; and
 - summary.

Site Location and Road Network

- 2.2 The Eastlakes Shopping Centre is located south of Gardeners Road at Eastlakes, and is generally bounded by Gardeners Road, Evans Avenue, Barber Avenue and Eastlakes Reserve, as shown on Figure 1.
- 2.3 The centre is in two main parts which are separated by Evans Avenue. The northern part of the centre provides specialty retail shops fronting Gardeners Road and a parking area with access from Evans Avenue.
- 2.4 The southern part of the centre provides the main part of the retail area, including supermarkets and specialty shops. Parking areas are provided with access from Barber Avenue and Evans Avenue. The Evans Avenue access is east of the Racecourse Place intersection which is controlled by a roundabout.

- 2.5 Surrounding land use includes low to medium density residential development. Eastlakes Reserve adjoins the centre to the west, a school and bowling club to the west in Florence Avenue with other areas of open space. There are golf courses north of Gardeners Road and east of Southern Cross Drive. South and west there is low to medium density residential development.
- 2.6 The road network in the vicinity of the centre includes Gardeners Road, Maloney Street, Evans Avenue, Racecourse Place, Barber Avenue and St Helena Parade.
- 2.7 Gardeners Road is a major east-west arterial road and forms part of a route linking Kingsford and Randwick in the east with the Princes Highway at Sydenham in the west. In the vicinity of the centre it provides a four to six lane divided carriageway with two to three traffic lanes in each direction. Major intersections are signalised with additional lanes for turning traffic. Gardeners Road has signalised intersections with Racecourse Place and Maloney Street. East of the centre, Gardeners Road provides a grade separation over Southern Cross Drive, which is part of a major north-south arterial route between the city and areas to the south.
- 2.8 West of the centre, Maloney Street is one of a number of north-south streets which runs south from Gardeners Road and provide access to residential and commercial areas in Eastlakes and Rosebery. Maloney Street has signalised intersections with Gardeners Road and Coward Street. Its intersection with King Street is controlled by a roundabout. Clear of intersections, Maloney Street generally provides for one traffic lane and one parking lane in each direction.
- 2.9 Evans Avenue runs west from Maloney Street and provides access to residential land uses and the centre. It bends at Eastlakes Reserve and has a roundabout controlled intersection with Racecourse Place. Evans Avenue also provides for

entry to and exit from parking areas at the centre. In the vicinity of the centre, Evans Avenue provides traffic calming measures and bus stops. There is a marked pedestrian crossing between the northern and southern parts of the shopping centre. Clear of intersections it generally provides for one traffic lane and one parking lane in each direction. The intersection of Evans Avenue with Maloney Street is a priority controlled intersection with Maloney Street the major road.

- 2.10 Racecourse Place runs south from a signalised intersection with Gardeners Road.

 There are left and right turn lanes on the approaches to the intersection.

 Racecourse Place provides access to adjacent residential development and the shopping centre at its southern end.
- 2.11 Barber Avenue runs south from Evans Avenue and provides access to centre car parks and loading docks. It bends around behind the centre and provides access to medium density residential development on the opposite side to the centre. There are restrictions on on-street parking in the vicinity of the centre. St Helena Parade runs south from Barber Avenue at an unsignalised intersection and provides a local route to and from residential areas in the south.

Approved Development

2.12 Project Approval (MP09_0149) was granted by the Planning Assessment Commission on 19 September 2013 for the construction of a mixed use development incorporating basement car parking, ground floor retail area, and residential development above, communal open space, public domain landscaping and associated infrastructure works. The approved development comprises:

- 404 residential units (comprising some 7 studio units, 211 one bedroom units,
 177 two bedroom units, 8 three bedroom units and 1 four bedroom unit);
- □ some 12,619m² GLA of retail area; and
- a required parking provision of some 916 spaces.

Proposed Modifications

- 2.13 The proposed Section 75W modifications to the approved development include changes to the northern site, located on the northern side of Evans Avenue.

 These modifications include:
 - construction of five additional levels of residential units above Building IB
 resulting in an additional 21 residential units;
 - reconfiguration of retail area, resulting in an increase of some 467m² GLA;
 - reconfiguration of on-site car parking and loading dock arrangements.
- 2.14 The additional 21 residential units will comprise some 1 studio, 7 one bedroom units, 10 two bedroom units and 3 three bedroom units.
- 2.15 In accordance with the approved development, vehicular access to the basement car park and to the on-site loading dock for the northern site will be provided from Evans Avenue.

Parking Provision

2.16 The Project Approval (MP09_0149) includes the following parking rates for the proposed development:

- □ I spaces per studio, one bedroom and two bedroom units;
- 2 spaces per three bedroom and four bedroom units;
- □ I visitor space per five residential units; and
- □ 3.5 spaces per 100m² of gross lettable retail area.
- 2.17 Application of the approved parking rates to the Section 75W modifications, results in a requirement for some 44 additional parking spaces. The total parking requirement for the overall development would therefore be 960 spaces. The proposed development will provide parking in accordance with this requirement. Seven additional spaces will be provided within the northern site and the balance will be provided within the southern site.
- 2.18 Residential parking will be provided on level B2 and the retail parking on level B1.

 The residential visitor parking will be shared with the retail parking on level B1.
- 2.19 In addition to car parking, the approved development included motor cycle and bicycle parking on levels B1 and B2. 12 accessible parking space are proposed within basement levels B1 and B2 of the northern site, which equates to over 5 percent of parking spaces within the northern development.

Access, Internal Layout and Servicing

2.20 No changes are proposed to the vehicular access arrangements onto Evans Avenue. The access arrangements to basement parking and on-site loading area will be provided in accordance with the Australian Standard for Parking Facilities Part 1: Off-street car parking (AS2890.1-2004) and Part 2: Commercial vehicle facilities (AS2890.2-2002).

- 2.21 The proposed modifications to the northern site will include a reconfiguration of on-site car parking arrangements within basement levels B1 and B2, and the reconfiguration of the on-site loading dock. Residential parking areas will be separated from the retail parking (retail parking on level B1 and residential parking on level B2). Inside the property line, driveways will provide a maximum grade of I in 20 for the first six metres into the sight, with clear areas for appropriate sight lines to pedestrians. Ramps will have a maximum grade of I in 5 with appropriate transitions at the top and bottom of the ramp.
- 2.22 Retail parking spaces will be 2.7 metres wide by 5.4 metres long and residential parking spaces will be 2.4 metres wide by 5.4 metres long. Aisles wides will be a minimum width of 6.2 metre. Columns will be set back 750mm from the front of spaces and parking spaces located adjacent to structure will be 300mm wider to provide for door opening.
- 2.23 Disabled parking spaces will be provided in accordance with the Australian Standard for Parking Facilities Part 6: Off-street car parking for people with disabilities (AS2890.6-2009). These spaces will be 2.4 metres wide by 5.4 metres long with an adjacent shared zone of 2.4 metre for wheelchair access. Height clearance will be 2.5 metres above disabled spaces and 2.2 metres elsewhere within the car parking areas. These parking dimensions are considered appropriate, being in accordance with the Australian Standards AS2890.1-2004 and AS2890.6-2009.
- 2.24 The reconfigured loading dock arrangements for the northern site will be accessed via a combined entry and exit driveway located on the northern side of Evans Avenue. The loading dock will cater for service vehicles ranging from medium to large rigid trucks. The loading dock will service the Aldi supermarket,

specialty retail and other development on the northern site (including the residential development). The service area will provide three loading bays and waste collection areas. In accordance with the Australian Standard AS2890.2-2002, a height clearance of 4.5 metres will be required within the loading dock.

2.25 The Aldi loading bay will be designed to cater for a 12.5 metre large rigid truck and the specialty loading bays will be designed to cater for 8.8 metre medium rigid trucks. All service vehicles will enter and exit the site in a forward direction. These arrangements are considered appropriate, being in accordance with the Australian Standard AS2890.2-2002.

Traffic Effects

- As set out in the traffic report that supported the project approval, traffic generated by the proposed redevelopment of the centre will have its greatest effects during the weekday morning, weekday afternoon and Saturday midday peak periods when it combines with other retail and commuter traffic on the surrounding road network. Traffic counts undertaken at the existing centre indicate that it generates some 3.1, 5.6 and 7.8 vehicles per hour two-way per 100m² GLA on Thursday morning, Thursday afternoon and Saturday midday peak hours respectively.
- 2.27 As per the approved development, we have adopted a traffic generation for the high density residential development of some 0.29 vehicles per hour two-way during the weekday morning and afternoon peak hours.
- 2.28 Application of these rates found that the proposed modifications will generate a modest increase in traffic generation of some 20 to 30 additional vehicles per hour

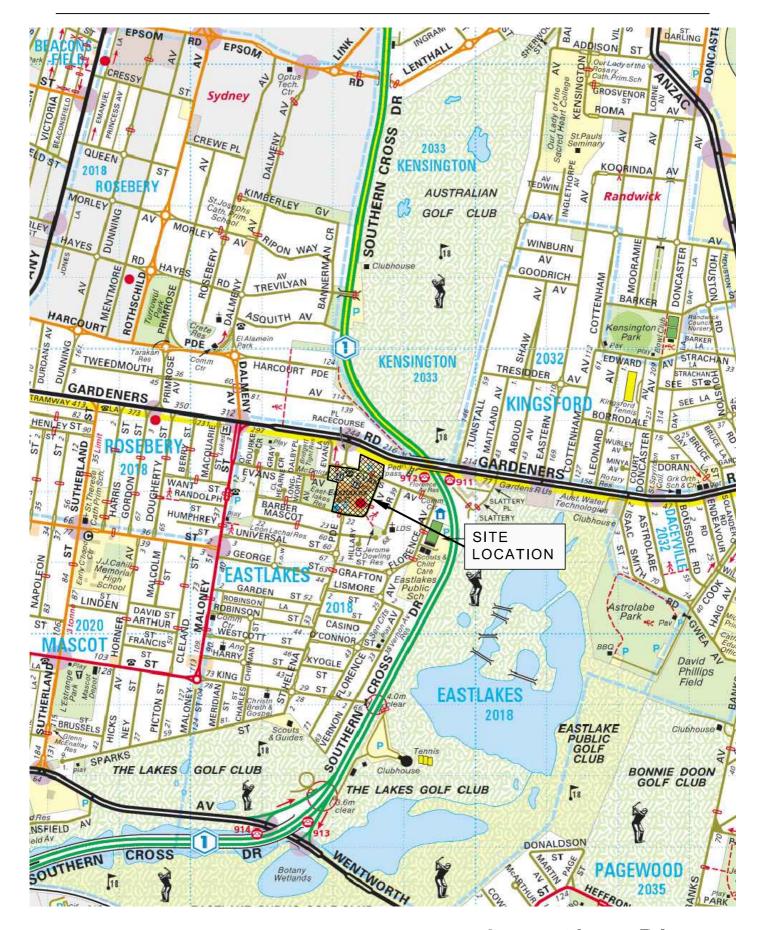
two-way during the Thursday morning and Thursday afternoon peak periods and some 40 additional vehicles per hour two-way during the Saturday midday peak period, compared to the approved development. This is equivalent to an average of less than one vehicle every two to three minutes during the weekday peak periods and less than one vehicle every 1.5 minute during the Saturday midday peak period.

2.29 Such modest increases in traffic during peak periods would not affect the operation of the surrounding road network. The previous traffic report found that intersections in the vicinity of the site will continue to operate at satisfactory or better level of service during peak periods.

<u>Summary</u>

- 2.30 In summary, the main points relating to the traffic implications of the proposed Section 75W modifications are as follows:
 - i) the proposed Section 75W modifications:
 - construction of two additional levels of residential units above Building 1B resulting in an additional 21 residential units;
 - reconfiguration of retail area, resulting in an increase of some 467m² GLA;
 - □ reconfiguration of on-site car parking and loading dock arrangements;
 - ii) parking provision is considered appropriate;
 - iii) access, internal layout and servicing will be provided in accordance with the Australian Standards;

- iv) the proposed modifications would result in only modest increases in traffic on surrounding roads, compared to the approved development, equivalent to an average of less than one vehicle every two to three minutes during the weekday peak periods and less than one vehicle every 1.5 minute during the Saturday midday peak period; and
- v) the surrounding road network and intersections in the vicinity of the site will continue to operate at satisfactory or better level of service during peak periods.



Location Plan