

WESTFIELD LIMITED

UPDATED REPORT ON THE TRAFFIC
IMPLICATIONS OF THE PROPOSED
ALTERATIONS AND ADDITIONS TO
WESTFIELD CHATSWOOD

JUNE 2014

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I. INTRODUCTION

- I.1. Colston Budd Hunt & Kafes Pty Ltd has been commissioned by Westfield to prepare a report on the traffic implications of the proposed alterations and additions to Westfield Chatswood Shopping Centre. The shopping centre is located within the Chatswood town centre and is located on the southern side of Victoria Avenue, as shown on Figure 1.
- I.2. This updated report has been prepared to address matters raised by Council with regard to parking provision, deletion of the Charlotte Lane loading dock and pedestrian access. It also includes modifications to the existing Albert Avenue car park that have been agreed with Council to improve access, internal circulation and provision of additional parking spaces. This updated report replaces our previous (December 2013) report that was lodged with the DA.
- I.3. The centre currently has a leasable area of some 73,390m² comprising retail and cinemas. Parking is provided in structure (Albert Avenue car park), basement and rooftop parking. The centre has access to/from Anderson Street, Albert Avenue, Victor Street, Claude Street and Devonshire Street. There is parking for some 2,805 vehicles.
- I.4. The proposed alterations and additions to the shopping centre include the following:-
- ❑ changes in the configuration of the Victoria Mall precinct;
 - ❑ provision of a new food market on Level 2;
 - ❑ conversion of existing retail tenancies on Levels 3, 4 and 5 to mini-majors and specialty retail;
 - ❑ provision of a new mini-major on Level 6; and
 - ❑ modifications to car parking arrangements.
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- 1.5. The proposed alterations and additions to the centre will result in an increase of some 4,055m² GLA.
- 1.6. This report assesses the traffic implications of the proposed alterations and additions to the shopping centre through the following chapter.

2. IMPLICATIONS OF PROPOSED DEVELOPMENT

2.1. The implications of the proposed alterations and additions to the shopping centre are set down through the following sections:-

- site location and road network;
- existing shopping centre;
- proposed development;
- parking provision;
- access and internal circulation;
- servicing arrangements;
- traffic effects; and
- summary.

Site Location and Road Network

2.2. The Westfield Chatswood Shopping Centre is located on the southern side of Victoria Avenue, as shown on Figure 1. The centre occupies the whole of the site bounded by Victoria Avenue, Spring Street, Albert Avenue and Victor Street.

2.3. Surrounding land use includes commercial and retail uses in the Chatswood CBD to the north, west and east. Albert Avenue car park is located to the south on the southern side of Albert Avenue. There are commercial and residential uses to the south.

2.4. The road network in the vicinity of the centre includes Victoria Avenue, Albert Avenue, Anderson Street and Spring Street. Victoria Avenue provides an east-west connection through the Chatswood CBD, connecting Penshurst Street and Eastern Way Valley in the east with Anderson Street in the west. West of

Anderson Street, Victoria Avenue has been converted to a pedestrian mall. Adjacent to the centre Victoria Avenue provides one traffic lane in each direction. East of Archer Street, it provides one traffic lane and one parking lane in each direction, clear of intersections.

- 2.5. Albert Avenue provides an alternative east-west connection through Chatswood on the southern side of the CBD. It provides for two traffic lanes in each direction, clear of intersections. The intersections of Albert Avenue with Archer Street, Spring Street and Anderson Street are controlled by traffic signals. All turning movements are permitted at these intersections and there are right turn bays in Albert Avenue for vehicles turning right into Spring Street and Archer Street.
- 2.6. Anderson Street provides a north-south connection through Chatswood, connecting Ashley Street in the north with Victoria Avenue in the south. South of Victoria Avenue, Anderson Street provides a one-way southbound carriageway between Victoria Avenue and Albert Avenue. South of Victoria Avenue, Anderson Street provides two traffic lanes with kerbside parking permitted clear of intersections.
- 2.7. Spring Street is located to the east and provides a north-south connection between Victoria Avenue and Albert Avenue. The intersection of Spring Street with Albert Avenue is controlled by traffic signals. Spring Street provides for one traffic lane and one parking lane in each direction, clear of intersections.

Existing Shopping Centre

- 2.8. The centre currently has a leasable area of some 73,390m² comprising retail and cinema area. Parking is provided within a structured car park located on the
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southern side of Albert Avenue (Albert Avenue car park), within basement parking and roof parking. There is parking for some 2,805 vehicles.

- 2.9. The main vehicular access to the Albert Avenue car park is provided to/from Albert Avenue, Victor Street, Claude Street and Devonshire Street. Access to basement parking located between Victor Street and Anderson Street is provided from Anderson Street via separate entry and exit driveways and via a tunnel connection beneath Albert Avenue linking to/from the Albert Avenue car park. Access to the roof top parking is provided to/from the Albert Avenue car park via a bridge connection above Albert Avenue.
- 2.10. Servicing arrangements for the centre are provided via loading docks located on Spring Street, Albert Avenue, Anderson Street and Victor Street.

Proposed Development

- 2.11. The proposed alterations and additions to the shopping centre include the following:-
- ❑ changes in the configuration of the Victoria Mall precinct;
 - ❑ provision of a new food market on Level 2;
 - ❑ conversion of existing retail tenancies on Levels 3, 4 and 5 to mini-majors and specialty retail;
 - ❑ provision of a new mini-major on Level 6; and
 - ❑ modifications to car parking arrangements.
- 2.12. The proposed alternations and additions to the centre will result in an increase of some 4,055m² GLA.

Parking Provision

Existing Situation

- 2.13. The existing car parks operated by Westfield provide 2,805 spaces (based on a recent audit by Westfield) located within the Albert Avenue multi-deck car park, rooftop parking over the shopping centre and basement parking located between Victor Street and Anderson Street.
- 2.14. With the park assist system operating within the car parks operated by Westfield, it is possible to determine the utilisation of the car park for each hour over the entire year. The shopping centre generally operates between 9.00am and 6.00pm each day. The 85th percentile parking demand is based on utilisation of the car park during these hours. Section 5.7.1 of the RMS Guide to Traffic Generating Developments (2002), notes that the 85th percentile level of parking demand must be considered for shopping centres. With park assist in place, the practical capacity of a large car park is at least 95% of the total parking provision (Park Assist suggest a practical capacity of 98%).
- 2.15. Council noted that in 2012 Westfield changed the mechanism for customers receiving three hours free parking. Prior to this change all parking was free for the first three hours. After the change the first two hours were free with the third hour free if the parking ticket was validated (at various machines located within the shopping centre or at the concierge desk). Our assessment of the 85th percentile parking demand considers:
- the 12 months October 2012 to September 2013 (when parking within the car park was two hours free with the third hour free subject to validation); and

- the 12 months October 2011 to September 2012 (when parking within the car park was three hours free).

2.16. A review of the information provided by park assist shows that:

- peak parking demand in the car park occurred between 10.00am and 4.00pm;
- there were three days in the year when the car park had minimal parking (days when the shopping centre was closed);
- for each year, between 9.00am and 6.00pm there are 3,528 parking hours. The 85th percentile hour is the 176th highest hour in the year;
- in 2011/2012 there were 190 hours when parking demand in the car park was 90% or higher (occurs on average 3.7 hours per week);
- in 2012/2013 there were 62 hours when parking demand in the car park was 90% or higher (occurs on average 1.2 hours per week);
- in 2011/2012 the 85th percentile parking demand was 89% of car park capacity (2,496 spaces) with 309 vacant spaces; and
- in 2012/2013 the 85th percentile parking demand was 82% of car park capacity (2,300 spaces) with 505 vacant spaces.

2.17. Based on the above, the existing shopping centre (some 73,390m²) has an 85th percentile parking demand of 1 space per 29m² (based on the 2011/2012 results) or 1 space per 32m² (based on the 2012/2013 results).

Proposed Modifications to Car Park

- 2.18. The proposed alterations and additions will result in the loss of 58 spaces within the Westfield rooftop car park (to accommodate the additional retail area. As part of the alterations and additions, modifications to the Albert Avenue car park are proposed to improve access and internal circulation. At times of high utilisation of the car park, queuing and delays can occur at the entry points to the car park, particularly at the Devonshire Street, Albert Avenue speed ramp and Victor Street entries. This can lead to a perception that the car park is nearing capacity when in fact parking on the upper levels is available. In addition the Albert Avenue entry located opposite Anderson Street (to the ground floor car park) will be relocated to the west to allow vehicles to access the car park from Anderson Street (as well as from Albert Avenue).
- 2.19. Details of the proposed modifications are set out in the section on Access and Internal Circulation.
- 2.20. As part of these modifications an additional 62 spaces will be created (58 spaces within the Albert Avenue car park and four spaces within the Myer Rooftop car park). In addition the existing long term parking (some 50 spaces that are cordoned off on Level 5) will be opened for use by the general public. Thus the proposed modifications will provide an additional 50 spaces accessible for general public use within the Albert Avenue car park.
- 2.21. A separate DA has been prepared for the modifications to the car park.

Additional Parking Demand

- 2.22. The additional parking demand for the proposed alterations and additions has been estimated based on:
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- existing parking demand rates; and
- RMS Guidelines.

- 2.23. Based on the existing parking demand rates of 1 space per 29m² to 32m², the additional 4,055m² specialty shops would have an additional parking demand of 127 to 140 spaces.
- 2.24. Based on the RMS Guidelines formula rate of 4.5 spaces per 100m², the additional 4,055m² specialty shops would have an additional parking demand of 183 spaces.
- 2.25. For the 85th percentile current parking demand, the existing car parks currently have a spare capacity of 505 vacant spaces. This would reduce to 382 spaces (based on existing parking demand rates (127 spaces) or 326 spaces (based on RMS rates) following the proposed extensions and modifications to the car park. This would result in the 85th percentile parking demand of expanded shopping centre being some 86% to 88% and below the 95% practical car park capacity. Thus the proposed parking provision is considered appropriate and consistent with RMS guidelines

Access and Internal Circulation

- 2.30 Vehicular access to the shopping centre will be maintained via driveways onto Anderson Street, Albert Avenue, Victor Street and Devonshire Street.
- 2.31 The proposed alterations to the Albert Avenue car park, as shown on plans prepared by Westfield (and attached as Appendix B), have been discussed with Willoughby Council and include the following:-

- provision of three entry controls from Victor Street. Modified internal circulation as a result of the modified entry controls;
 - provision of new car parking spaces within the proposed infill extensions to the car park, located adjacent to the southern boundary of the car park on Levels 1 to 4;
 - provision of two entry controls on the Level 2 entry ramp from Devonshire Street. Modified internal circulation as a result of the modified entry controls;
 - provision of two entry controls on the Level 4 express ramp from Albert Avenue;
 - removal of the exiting internal ramp between Levels 4 and 5, from the Albert Avenue express ramp. Provision of new car parking spaces on Level 5 within the proposed infill of the existing ramp;
 - relocation of existing entry driveway from Albert Avenue opposite Anderson Street further west, near the existing Level 2 exit ramp onto Albert Avenue. Modified internal circulation to provide for the relocated entry driveway and the provision of a single entry control;
 - modify existing lane markings in Albert Avenue to provide for the left turn into the new entry driveway;
 - close the existing entry driveway from Albert Avenue opposite Anderson Street. Provide additional car parking as a result of the closure;
 - provision of new car parking spaces within the Level 1 car park, located adjacent to the northern boundary of the car park;
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- internal re-arrangement of car parking spaces and internal circulation to provide for the modified access arrangements; and
- reconfiguration of the northern aisle of the Myer Rooftop car park (through changes to line marking) to provide five new parallel car spaces.

2.32 The modifications to the Albert Avenue car park will improve access and internal circulation to ease existing choke points at entry/exit points and within the car park.

2.33 Car parking arrangements will be provided with car parking dimensions, aisle widths, ramp grades and transitions in accordance with the requirements of the Australian Standard for off-street car parking facilities (AS2890.1-2004). Parking spaces will be 2.6 metres wide by 5.4 metres long, clear of structure, with circulation aisles of at least 6.6 metres wide. Spaces with adjacent obstructions will be wider to provide for door opening. Dead end aisles will have a one metre extension to allow access to end parking bays.

2.34 Disabled parking spaces will be 2.4 metres wide by 5.4 metres long with an adjacent shared zone of 2.4 metres for wheelchair access. Height clearance will be 2.5 metres above disabled spaces and 2.2 metres elsewhere within new car parking areas. These dimensions are considered appropriate, being in accordance with the Australian Standards AS2890.1-2004 and AS2890.6-2009.

Servicing Arrangements

2.35 The proposed alterations and additions to the centre do not substantially change servicing arrangements to the existing shopping centre. Loading facilities for the proposed new tenancies will be provided via the existing Spring Street loading dock. As a result of the proposed alterations and additions to the centre the two

existing Toys R Us loading bays, located within the Spring Street loading dock, will no longer be required. These two loading bays will therefore be available for servicing the new tenancies.

- 2.36 The two loading bays have been designed to cater of service vehicles ranging from small commercial vehicles to large rigid trucks up to 12.5 metres in length. The swept path of services vehicles accessing and manoeuvring within the loading dock are shown in Appendix A.

Traffic Effects

- 2.37 The proposed alterations and additions will increase the size the shopping centre by some 4,055m² (including some 460m² of food court/restaurants). As noted in the parking section, during peak trading periods at the shopping centre the food court/restaurants would be ancillary (servicing people already in the shopping centre) and thus would not generate additional traffic. RMS guidelines suggest generation rates of 3.1 and 3.6 trips per 100m² hour in the Thursday afternoon and Saturday midday peak hours respectively. Applying these rates to the additional retail area (3,595m²) would result in the proposed extensions generating some 110 and 130 vehicles per hour (two way) in the Thursday afternoon and Saturday midday peak hours respectively. This additional traffic will be split between the various access points (Devonshire Street, Albert Avenue, Anderson Street, Claude Street and Victor Street) with increases of some 10 to 20 vehicles per hour at each entry and exit point. These are minor increases of one vehicle every three to five minutes and would not materially affect the operation of access points.
- 2.38 The additional traffic would be distributed to the surrounding road network (Devonshire Street, Albert Avenue, Anderson Street, and Victor Street) with increases of between some 10 and 30 vehicles per hour (two way) on these roads.
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Such minor increases in traffic would have no material effects on the operation of surrounding road network.

Summary

- 2.39 In summary, the main points relating to the implications of the proposed alterations and additions to the shopping centre are as follows:-
- i) the proposed alterations and additions to the centre will result in an increase of some 4,055m² GLA;
 - ii) parking provision is considered appropriate;
 - iii) vehicular access to the shopping centre will be maintained via driveways onto Anderson Street, Albert Avenue, Victor Street and Devonshire Street;
 - iv) modifications to the existing Albert Avenue car park are proposed to improve access and internal circulation;
 - v) modified access and car parking arrangement will be provided in accordance with the Australian Standards;
 - vi) existing servicing arrangements will not be substantially changed;
 - vii) the surrounding road network will be able to cater for the additional traffic generated by the proposed alterations and additions to the shopping centre.

APPENDIX A

VEHICLE SWEPT PATHS

APPENDIX B

CAR PARK PLANS
