

### **RESIDENTIAL LEVEL 9**

		TOTAL	TOTAL
UNIT MIX		UNITS	BEDROOMS
3	BED	2	6
2	BED	4	8
1	BED	2	2
TOTAL		8	16

### STAGE 1

		TOTAL	TOTAL
U	NIT MIX	UNITS	BEDROOMS
3	BED	1	3
2	BED	1	2
1	BED	2	2

### STAGE 2

		TOTAL	TOTAL
U	NIT MIX	UNITS	BEDROOMS
3	BED	1	3
2	BED	3	6



## HORNSBY RSL MASTER PLAN PROJECT 815E.14

ALTIS architecture pty ltd lower deck jones bay wharf suite 123 / 26-32 pirrama rd pyrmont 2009 nsw p 61 2 9364 9000 f 61 2 9571 7930 w www.altisarchitecture.com





1:250 @ A1











### ASHLEY STREET ELEVATION



MASTER PLAN PROJECT 815E.14

ASHLEY LANE

H SH

2

ASHLEY STREET

WEBB AVENUE

ALTIS architecture pty ltd lower deck jones bay wharf suite 123 / 26-32 pirrama rd pyrmont 2009 nsw p 61 2 9364 9000 f 61 2 9571 7930 w www.altisarchitecture.com

## ASHLEY STREET AND WEBB AVENUE ELEVATIONS

SITE 3 1:250 @ A1



## CAR PARK

79
29
108

## RESIDENTIAL

		TOTAL	TOTAL
UNI	ΤΜΙΧ	UNITS	BEDROOMS
3 B	ED	31	93
2 B	ED	69	138
1 B	ED	6	6
ΤΟΤ	AL	106	237

### STAGE 1

	TOTAL	TOTAL
UNIT MIX	UNITS	BEDROOMS
3 BED	16	48
2 BED	33	66
1 BED	5	5
TOTAL	54	119

### STAGE 2

	TOTAL	TOTAL
UNIT MIX	UNITS	BEDROOMS
3 BED	15	45
2 BED	36	72
1 BED	1	1
TOTAL	52	118

ALLOWABLE FSR SITE AREA ALLOWABLE GFA	3:1 5,565m² 16,695m²
PROPOSED FSR	2.6:1
PROPOSED GFA	14,338m²



## HORNSBY RSL MASTER PLAN PROJECT 815E.14

ALTIS architecture pty ltd lower deck jones bay wharf suite 123 / 26-32 pirrama rd pyrmont 2009 nsw p 61 2 9364 9000 f 61 2 9571 7930 w www.altisarchitecture.com

SITE 3







ALTIS architecture pty ltd lower deck jones bay wharf suite 123 / 26-32 pirrama rd pyrmont 2009 nsw p 61 2 9364 9000 f 61 2 9571 7930 w www.altisarchitecture.com

SHADOW DIAGRAM WINTER 9am SITE 1, 2 and 3 1:500 @ A1







ALTIS architecture pty ltd lower deck jones bay wharf suite 123 / 26-32 pirrama rd pyrmont 2009 nsw p 61 2 9364 9000 f 61 2 9571 7930 w www.altisarchitecture.com

### SHADOW DIAGRAM WINTER 11am SITE 1, 2 and 3 1:500 @ A1







ALTIS architecture pty ltd lower deck jones bay wharf suite 123 / 26-32 pirrama rd pyrmont 2009 nsw p 61 2 9364 9000 f 61 2 9571 7930 w www.altisarchitecture.com

SHADOW DIAGRAM WINTER 12pm SITE 1, 2 and 3 1:500 @ A1







ALTIS architecture pty ltd lower deck jones bay wharf suite 123 / 26-32 pirrama rd pyrmont 2009 nsw p 61 2 9364 9000 f 61 2 9571 7930 w www.altisarchitecture.com

SHADOW DIAGRAM WINTER 1pm SITE 1, 2 and 3 1:500 @ A1







ALTIS architecture pty ltd lower deck jones bay wharf suite 123 / 26-32 pirrama rd pyrmont 2009 nsw p 61 2 9364 9000 f 61 2 9571 7930 w www.altisarchitecture.com

SHADOW DIAGRAM WINTER 3pm SITE 1, 2 and 3 1:500 @ A1







ALTIS architecture pty ltd lower deck jones bay wharf suite 123 / 26-32 pirrama rd pyrmont 2009 nsw p 61 2 9364 9000 f 61 2 9571 7930 w www.altisarchitecture.com

# MASS DIAGRAM

1:250 @ A1

ALTIS architecture DESIGN COPYRIGHT ALTIS ARCHITECTURE



Hornsby RSL Club Planning Proposal

### **Design Statement**

REV.2 | May 2016

#### ALTIS architecture pty ltd.

lower deck, jones bay wharf 123 / 26-32 pirrama road pyrmont, nsw 2009 T +612 9364 9000 F +612 9571 7930 www.altisarchitecture.com arc@altisarchitecture.com



### Contents

Design Statement	3
Introduction	3
Context	3
Design Philosophy	4
Urban Design Considerations	4
Extent of West Side Precinct	4
Height	4
Set Backs	5
Floor Space Ratio	5
Streetscape	6
Summary	6



### Design Statement

Following a rigorous process of site & urban design analysis, explorative concept design and consultation with Council, Altis propose a fitting amendment to the Hornsby Local Environmental Plan approved in December 2014

### Introduction

The planning proposal addresses the land owned by Hornsby RSL club highlighted as sites 1, 2 and 3 in the accompanying drawings prepared by Altis Architecture. Sites 1 and 2 fall within the Hornsby West Side precinct that has been adopted into the amended Hornsby Local and Environmental Plan 2014. Site 3 is directly to the south of this precinct.

The proposal embraces the intent, visions and principals of the amended Hornsby Local Environmental Plan approved in December 2014 and offers a mix of expanded club and complimentary uses and built forms which redefines the characteristics of the 3 sites, both in the architectural characteristics of the context and the activation and programme overlay for the site.

The attached Design Package provides information the concept development proposal as well as the studies and analysis that underpins this proposal.

### Context

Site 1 currently contains a 4 level car park and has primary frontage onto William street on the North with a secondary frontage onto Ashley Lane to the south. The western boundary is shared with a residential building while the eastern boundary is shared with commercial premises. There is currently a right of way between the two sites which could be formalised to activate both the site 1 and the site to the East.

Site 2 currently houses Hornsby RSL club. The club consists of a 3 level building with primary frontage onto High street to the East and Ashley street to the south with secondary frontage onto Ashley street to the North. The western boundary is shared with a residential flat building.

Site 3 is currently a vacant site. The site has primary frontage onto Ashley Street to the north, Forbes Street to the east and Webb Avenue to the south. The western boundary is shared with low density residential houses.



### Design Philosophy

The design intent, as a place making proposal, is to create a "Place for People" with layers of both public and private uses. This is achieved through a Mixed Use Development Proposal, conceived to activate the site by providing a rich and varied mix of complimentary built forms and uses.

- New residential building on site 1 over the existing car park
- The proposal would like to consider a public access laneway to the East of site 1 where the existing right of way exists to provide lave activation between William street and Ashley Lane
- Additions to the existing Hornsby RSL club building on site 2 to provide additional amenities to the Hornsby Community which will expand on the clubs existing food and beverage, functioning and sub clubs offers.
- New hotel on site 2 to provide for both the Hornsby area as well as the clubs demand for accommodation based on their existing conferencing facilities.
- Retiree living on site 3 to help cater for the increased demand of retiree living in the greater Sydney area
- The development is also supported by increasing the existing car park on site 1 by 1 level, the proposed multi-storey car park on the western end of site 2 and the underground parking associated with the retiree living development on site 3.

The proposed concept for the development has been conceived to recognise the parameters by which design excellence can be achieved. This has been through the realisation of high standard of architectural and public realm design, materials and detailing, appropriate to the building type and location and implementation of sustainable design initiatives as well as contextual, urban design considerations.

### Urban Design Considerations

### **Extent of West Side Precinct**

The Westside precinct as adopted into the Hornsby LEP has its southern boundary along Ashley street which is to the North of site 3. The proposal seeks to include site 3 in this precinct as the site does not currently have residential dwellings and is of a suitable scale to have a more substantial development. Refer to the Hornsby RSL Masterplan document for the proposed addition to the west side precinct.

### Height

The December 2014 amendment to the Hornsby LEP shows a clear hierarchy of building heights with 20 storey gateway sites with adjacent sites stepping down to 15 storeys. The sites adjacent to these 15 storeys buildings reduce in height to 10-12 storeys. The sites at the periphery of the precinct vary in height from 2 to 5 storeys on the northern side, generally 10-12 on the western side and 5 on



the southern side. We have applied a similar principals to this planning proposal.

Site 1 is to the west of the 20 storey gateway site at the corner of Pacific Highway and William. The site to the north of this gateway site is 15 storeys, the same number of stories has been applied to site 1 to give balance to the height of the gateway site.

Site 2 was previously at the south-west of the Westside precinct. With the proposed inclusion of site 3 within the west side precinct, the southern boundary will move from Ashley Street to Webb Avenue. This being the case, the proposal is for the heights limit on site 2 be increased from 5 storeys on the south and west to 10 storeys and from 8 storeys on the north east to 12 storeys this is more in line with the 10-12 storey height limits that sit adjacent to 15 storey buildings in the west side precinct.

Site 3 was not originally considered as part of the Westside precinct, based on this planning proposal, the boundary with Webb Avenue would become the southern boundary of the West side precinct. The proposal is to have a height limit of 6 storeys across the site. This is generally in keeping with the heights of the existing Hornsby LEP which is between 5 and 8 storeys on the southern side of the Westside precinct. Refer to Hornsby RSL masterplan document.

#### Set Backs

The planning proposal intends on adopting the majority of the setbacks noted in the current LEP with the following exceptions:

Site 1, if the existing right of way is formalised into a lane we would suggest a Om set back to activate the lane.

Site 2, to allow for vehicle access at the western end of the site to a new car park we would suggest a Om setback for the first level to allow acoustic separation between the cars entering the car park and the adjacent residential building. The current 6m setback would then be adopted above the entry. On the south-western side of site 2 we would suggest having a 0-3m set-back to align with the existing built form of Hornsby RSL Club.

Site 3, A 3m set-back is being allowed on the north, east and south sides of the site to tie in with the 0-3m setbacks shown between the street boundaries and buildings in other sites in the west side precinct. On the eastern side a 6m set back is included to form buffer between the site and the adjacent residential properties.

#### **Floor Space Ratio**

The 3:1 ratio included in the LEP will be adopted.



#### Streetscape

Site 1: The proposal envisages new retail being included in the ground level of the existing car park on site 1 to help activate the building on William street. A new lane between William Street and Ashley Lane also provides an opportunity activate both site 1 on the west and also the gateway site to the east. The laneway would also act as a natural pedestrian path to the RSL club which is currently reached through the informal lane that exists between site 1 and the gateway site.

Site 2: The club currently has 2 entries, one off High Street to the west and the second off Ashley Lane to the North. These sides are the primary entries and frontages to the club. A third entry to the site could be included to the west of the southern boundary along Ashley Street depending on what the use was for the club expansion in this area. E.g. a separate entry to a space that may have an external operator and may need access outside of club hours. This could be a gym or a medical centre for example.

Site 3 will be a residential building and will have one primary entry point. The remainder of the boundaries will not be street activated.

### Summary

The proposal intends to add to the locality's strong 'sense of place' by providing a new benchmark for urban development consistent with the intent and vision of Hornsby LEP.

As well as providing new residential buildings, the proposed multi-layered and mixed use development, provides the Hornsby West Precinct with an enhanced space for the community.

### HORNSBY RSL MASTERPLAN TRAFFIC IMPACT ASSESSMENT

FOR

**ALTIS ARCHITECTURE** 



Gold Coast Suite 26, 58 Riverwalk Avenue Robina QLD 4226 P: (07) 5562 5377 W: www.bitziosconsulting.com.au Brisbane Level 2, 428 Upper Edward Street Spring Hill QLD 4000 P: (07) 3831 4442 E: admin@bitzioscon sulting.com.au

002

Version No:

Sydney Studio 203, 3 Gladstone Street Newtown NSW 2042 P: (02) 9557 6202

Issue date: 14 October 2016

Project No: P2269

### **DOCUMENT CONTROL SHEET**

### **Issue History**

Report File Name	Prepared by	Reviewed by	Issued by	Date	Issued to
P2269 001R Hornsby RSL Masterplan TIA.dox	STanzer	T Wheatley	F Lau	12/11/2015	Derek Carroll
	F Lau				DerekO@altisarchitecture.com
P2269 002R Hornsby RSL Masterplan TIA.dox	C Wills	S. Brooke	F Lau	14/10/2016	Derek Carroll
	F Lau				DerekO@altisarchitecture.com

Copyright in the information and data in this document is the property of Bitzios Consulting. This document and its information and data is for the use of the authorised recipient and this document may not be used, copied or reproduced in whole or in part for any purpose other than for which it was supplied by Bitzios Consulting. Bitzios Consulting makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely upon this document or its information and data.

### 

### CONTENTS

		Page
1.	INTRODUCTION	1
1.1 1.2 1.3	BACKGROUND HORNSBY RSL MASTERPLAN SCOPE OF WORKS	1 1 2
2.	Existing Conditions	3
2.1 2.2 2.3	EXISTING ROAD NETWORK EXISTING DEVELOPMENT EXISTING TRAFFIC DISTRIBUTION	3 4 4
3.	HORNSBY RSL MASTERPLAN TRAFFIC	6
3.1 3.2 3.3	TRAFFIC GENERATION RATES DIRECTIONAL SPLIT DISTRIBUTION SPLIT	6 7 7
4.	MODELLING METHODOLOGY	8
4.1 4.2	MODEL SCOPE PROPOSED 50% COMPLETION DEVELOPMENT YIELDS IN HORNSBY WEST SIDE PRECINCT	8 10
5.	MODEL MODIFICATION	12
6.	NETWORK PERFORMANCE	14
6.1 6.2 6.3	PERFORMANCE CRITERIA INTERSECTION PERFORMANCE TRAVEL TIME COMPARISON	14 14 25
7.	CONCLUSION	28

Tables



- Table 2.1: Surrounding Road Hierarchy and Details
- Table 3.1:
   Hornsby RSL Masterplan Traffic Generation
- Table 3.2: Hornsby RSL Masterplan Origin/Destination Traffic Split

 Table 4.1:
 Proposed 50% Development Completion Base Traffic Generation in Hornsby West Side 2021 (Excluding Hornsby RSL Masterplan Traffic)

- Table 6.1: Level of Service Criteria
- Table 6.2: Intersection Approaches Performance Comparison Table
- Table 6.3: Travel Time Comparison

#### **Figures**

Figure 1.1:	Hornsby RSL Masterplan	Locality
Figure 1.2:	Hornsby RSL Masterplan	Proposed Development

- Figure 2.1: Road Network
- Figure 2.2: Hornsby RSL Precinct Traffic Distribution
- Figure 3.1: Future Hornsby RSL Precinct Traffic Distribution
- Figure 4.1: Hornsby RSL Masterplan Network Extent
- Figure 4.2: VISSIM Network Extent
- Figure 4.3: Proposed Development Yields Hornsby West Side Precinct
- Figure 5.1: Proposed Alterations to Existing Road Network
- Figure 5.2: Peats Ferry Road Alterations and Reconfiguration
- Figure 6.1: Typical 2021 AM Base Case Queueing
- Figure 6.2: Typical 2021 PM Base Case Queueing
- Figure 6.3: Base Model Intersection Performance (AM and PM Peak)
- Figure 6.4: With Proposed Development Traffic Intersection Performance (AM and PM Peak)
- Figure 6.5: Travel Time Marker Locations
- Figure 6.6: Base Case vs Masterplan Traffic Northbound Travel Time Comparison
- Figure 6.7: Base Case vs Masterplan Southbound Traffic Travel Time Comparison

#### Appendices

Appendix A: Hornsby RSL Precinct Planning Proposal

### 1. INTRODUCTION

### 1.1 BACKGROUND

The Hornsby Returned and Services League (RSL) has proposed a precinct masterplan to facilitate the urban renewal of the Hornsby Central Business District (CBD) precinct. The masterplan proposes a new residential development (building 1) above the existing car park between Ashley Lane and William Street, an extension to the existing RSL club with mixed residential and hotel development (building 2) above the existing RSL development, and a new seniors living development (building 3) at Forbes Street.

The redevelopment of the Hornsby West Side Precinct is currently underway with the objective understood to be to regenerate buildings and infrastructure under new planning controls in Hornsby Shire Council's (HSC) Hornsby Local Environmental Plan (HLEP) and Hornsby Development Control Plan (HDCP). The Hornsby RSL Masterplan locality in the context of the Hornsby West Side Precinct is presented in Figure 1.1.



SOURCE: Google Maps, Australia

### Figure 1.1: Hornsby RSL Masterplan Locality

### 1.2 HORNSBY **RSL** MASTERPLAN

The HornsbyRSL Masterplan (included in Appendix A) comprises three (3) developments (see Figure 1.2). The types of development included are:

- Building 1 proposed residential apartment to be developed above the existing car park with:
  - 60 new residential car parking spaces; and
  - 81 new residential units.
- Building 2 proposed mixed development type to be developed above the existing RSL club with:
  - RSL club extension (approximately 1,200m<sup>2</sup>);
  - 253 new club car parking spaces;
  - a new 108 room hotel development; and
  - 56 new residential units.
- Building 3 proposed new senior living apartment:
  - 108 new residential car park spaces; and
  - 106 new senior living units.



Source: Hornsby RSL Masterplan Planning Proposal

### Figure 1.2: Hornsby RSL Masterplan Proposed Development

### 1.3 **S**COPE OF **W**ORKS

This Traffic Impact Assessment has been prepared based on the following Scope of Works:

- estimating traffic generation of the proposed development in accordance with the Roads and Maritime Services traffic generation rates;
- using the existing Hornsby Strategic (VISUM) Transport model to assess the broad impacts of the development-generated traffic;
- converting the VISUM model into a VISSIM microsimulation model to enable a detailed visual and analytical assessment of the impacts of the additional development traffic on the road network including effects on pedestrians and public transport; and
- concluding what the effects of the development are on traffic and transport conditions and what upgrades might be warranted.

### 2. EXISTING CONDITIONS

### 2.1 EXISTING ROAD NETWORK

The road network surrounding the masterplan site is shown in Figure 2.1. A summary of the key roads within the Hornsby West Side Precinct that would be expected to be directly impacted by the proposed masterplan is presented in Table 2.1.



\*Pacific Highway between George Street and Bridge Road is now known as Peats Ferry Road

### Figure 2.1: Road Network

### Table 2.1: Surrounding Road Hierarchy and Details

Road Name	Jurisdiction	No. of Lanes	Hierarchy	Posted Speed <sup>1</sup>	Additional Details
William Street	HSC	Two (two-way)	Local Road	50 km/h	Provides access to the Building 1 existing car park. A signalised intersection exists at Peats Ferry Road.
Ashley Lane	HSC	One (one-way)	Local Road	50 km/h	One-way exit to Ashley Lane from Building 2 car park and one-way drop off area to Building 2. Separate entry / exit accesses to Building 1 existing car park. A non-signalised intersection is at Peats Ferry Road.
Ashley Street	HSC	Two (two-way)	Local Road	50 km/h	Provides access to one-way internal circulating roadway to drop-off zone to building 3 entrance lobby. A one-way entrance to building 2 car park is provided from Ashley Street. Forms non-signalised intersection with Forbes Street and High Street.
Webb Avenue	HSC	Two (two-way)	Local Road	50 km/h	Provides southern entry to building 3 level 1 car park and to car park 2. Forms un-signalised intersection with Forbes Street.
Forbes Street	HSC	Two (two-way)	Local Road	50 km/h	Forms east boundary of Building 3.
High Street	HSC	Two (two-way)	Local Road	50 km/h	Provides pedestrian access to Hornsby RSL. Forms non-signalised intersection with Peats Ferry Road.
Peats Ferry Road	HSC	Four (two-way)	Arterial Road	40km/h	Connects to the Pacific Highway which travels between North Sydney and Hornsby.
C oronation Street	HSC	Two (two-way)	Local Road	50km/h	Provides access to Hornsby Station and forms a signalised intersection with Peats Ferry Road.



Road Name	Jurisdiction	No. of Lanes	Hierarchy	Posted Speed <sup>1</sup>	Additional Details
George Street	State	Four (two-way)	Highway	60km/h	Pacific Highway (South) becomes George Street for section of road parallel to train line prior to becoming Bridge Road. Forms signalised intersections with Bridge Road, Linda Street, Burdett Street and Pacific Highway/Peats Ferry Road. Is part of the Roads and Maritime Services (RMS) Highway Road 10.
Burdett Street	HSC	Four (in study area) (two-way)	C ollector Road	50km/h	Provides access to northern entrance to Westfield Hornsby, Hornsby Ku-Ring-Gai Hospital and residential areas. Forms signalised intersection with George Street.
Linda Street	HSC	Two (two-way)	Collector Road	50km/h	Provides access to residential areas of Hornsby. Forms signalised intersection with George Street.
Edgeworth David Avenue	HSC	Four (two-way)	Collector Road	50km/h	Provides access to high density residential area of Hornsby. Forms signalised intersection with Pacific Highway.
Pacific Highway (South)	State	Four (two-way)	Highway	60km/h	Pacific Highway (South) connects Hornsby with Chatswood and North Sydney. Is part of the Roads and Maritime Services (RMS) Highway Road 10.
Pacific Highway (North)	State	Four (time restricted parking in left hand lanes( (two-way)	Main Road (Arterial)	60km/h	Pacific Highway (North) connects Hornsby with the northern extents of Sydney and the Central Coast. Is part of the Roads and Maritime Services (RMS) Main Road 161.
Bridge Road (between George St and Jersey St North)	State	Four (two-way)	Highway	60km/h	A short section of Roads and Maritime Services (RMS) Highway Road 10 providing connection between George Street and Jersey Street North. Forms a signalised intersection with George Street and Jersey Street North.
Bridge Road (between Jersey St North and Pacific Hway)	State	Four (two-way)	Main Road (Arterial)	60km/h	A short section of Roads and Maritime Services (RMS) Main Road 161 providing connection between Pacific Highway and Jersey Street North.
Jersey Street	HSC	Two (two-way)	Local Road	50km/h	Provides access to businesses between Bridge Road and Hornsby Station. Could form a rat run if Peats Ferry Road and George Street are congested. Is a left in and left out only non-signalised intersection with Bridge Road in the north and a roundabout with Coronation Street in the south.

<sup>1</sup>Where no posted speed limit has been provided, the default urban speed of 50 km/h is enforced.

### 2.2 EXISTING DEVELOPMENT

The Hornsby RSL Masterplan development site comprises of

- Building 1, which is currently a community car park for Hornsby RSL patrons located between William Street and Ashley Lane,
- Building 2, which is currently the Hornsby RSL Club; and
- a vacant block bounded by Forbes Street, Ashley Street and Webb Avenue (proposed Building 3 location).

### 2.3 EXISTING TRAFFIC DISTRIBUTION

The existing traffic flows were extracted from the calibrated and validated 2014 VISUM model. These show a distribution of traffic entering and leaving the Hornsby RSL precinct. As expected a high proportion of traffic accesses Hornsby RSL from Peats Ferry Road (formerly Pacific Highway), with reduced volumes accessing Hornsby RSL from the residential areas via Ashley Street and Frederick Road. The distribution of traffic is shown in Figure 2.2.





#### Figure 2.2: Hornsby RSL Precinct Traffic Distribution

For the purposes of this assessment the traffic was considered to be split into three zones. The zones include a northern, eastern and south-western zone, each with a different access route, as follows:

- Eastern Zone (45% Traffic Distribution): traffic accessing HornsbyRSL from areas to the east of Hornsby is assumed to access Hornsby via the Pacific Highwayfrom the south, Edgeworth David Avenue from the east and George Street from the north. All vehicles travelling on these roads are assumed to use Peats Ferry Road before turning onto High Street and Ashley Street to access the RSL;
- Northern Zone (35% Traffic Distribution): traffic coming to the RSL from the north is assumed to use Peats Ferry Road, which continues on from the Pacific Highwayto the north. Vehicles are then assumed to turn onto High Street and Ashley Street to access the RSL; and
- South-Western Zone (20% T raffic Distribution): the south-western zone represents largely residential
  properties serviced by local and connector roads which is in contrast to the eastern and northern zones
  which are serviced by the Pacific Highway. As a result, the traffic volumes are reduced from this zone,
  with access assumed along Frederick Street before turning onto Ashley Street.

### 3. HORNSBY RSL MASTERPLAN TRAFFIC

### 3.1 TRAFFIC GENERATION RATES

Traffic generation rates were taken from the *Roads and Maritime Services Guide to Traffic Generation Developments – Technical Direction* (2013) for high density residential flat dwellings, office blocks, and housing for senior peak hour vehicle trips. The *Guide to Traffic Generating Developments* (2002) rates were extracted for motel and club type developments as these are not available in the 2013 Technical Direction. The rates applicable to the proposed development components and the resulting traffic generation are shown in Table 3.1. This table shows the additional traffic generated by the site which is in addition to the current traffic generation of the site.

		AM Peak		PM Peak		
DevelopmentType	Quantity	Rates	Generated Trips	Rates	Generated Trips	
Building 1						
High Density Residential 81 units 0		0.19 trips per unit	15	0.15 trips per unit	12	
Building 2						
Hotel <sup>1</sup>	108 rooms	0.4 trips per unit	35 <sup>2</sup>	0.4 trips per unit	35 <sup>2</sup>	
High Density Residential	56 units	0.19 trips per unit	11	0.15 trips per unit	8	
Club <sup>3</sup>	1,220m <sup>2</sup> GFA	Not applicable <sup>5</sup>	-	10 trips per 100m <sup>2</sup> GFA	61 <sup>3</sup>	
Building 3						
Senior Living <sup>4</sup>	106 dwellings	Not applicable <sup>5</sup>	-	0.4 trips per dwelling	34	
TOTAL		61	TOTAL	150		

 Table 3.1:
 Hornsby RSL Masterplan Traffic Generation

<sup>1</sup> Roads and Maritime Services 'motel' rates were adopted

<sup>2</sup> A 20% reduction was applied to the RMS 'motel' rates as the hotel is assume to be 80% occupancy on average

<sup>3</sup> A 50% reduction was applied to the RMS 'club' rates due to proximity to public transport and residential precincts and findings of Hornsby RSL Parking Study (2014)

 $^4\text{A}$  20% reduction was applied to the RMS 'senior living' rates due to proximity to amenities

<sup>5</sup> The RMS surveys show that the club and senior living AM peak does not coincide with the commuter's morning peak and hence were excluded

From the table above, it is estimated that the Hornsby RSL Masterplan is expected to generate 61 vehicles/hour in the AM peak and 150 vehicles/hour in the PM peak.

### 3.2 DIRECTIONAL SPLIT

The AM and PM peak IN/OUT splits used for each development component were taken from those assumed for the *Hornsby Strategic (VISUM) Transport Model*. This is presented in Table 3.2.

Developme nt Type	AM Peak Period			PM Peak Period			
	Trips	% IN/OUT	Vehicles IN/OUT	Trips	% IN/OUT	Vehicles IN/OU	
Building 1	Building 1						
Residential	15	20%/80%	3 / 12	11	80% / 20%	10/2	
Building 2	Building 2						
Hotel	35	50%/50%	17 / 18	37	50% / 50%	18/17	
Residential	11	20%/80%	2/9	8	80% / 20%	6/2	
Club	-	-	-	61	80% / 20%	49/12	
Building 3							
Senior Housing	-	-	-	34	80%/20%	27 / 7	
TOTAL			22/39	TOTAL		110/40	

 Table 3.2:
 Hornsby RSL Masterplan Origin/Destination Traffic Split

### 3.3 DISTRIBUTION SPLIT

The traffic access distribution for the masterplan is expected to be similar to the existing distribution split as no new access roads are proposed. Changes to the layout of Peats Ferry Road are proposed by Hornsby Shire Council and outlined in Business section on pages 4-96 to 4-98 of the 2013 Hornsby Development Control Plan. After consultation with the Hornsby Shire Council Traffic Engineer, who raised the likelihood of a rat-run for vehicles accessing the site from the Pacific Highway to the south east, a redistribution of the traffic shown in Figure 2.2 is assumed for 2021 conditions due to the altered layout of Peats Ferry Road. A small proportion of vehicles accessing HornsbyRSL from the east, along the Pacific Highway, are assumed to use Pretoria Parade to access Frederick Street and then Ashley Street to avoid traffic congestion on the Pacific Highway and Pears Ferry Road. The revised distribution split is shown in Figure 3.1.



Figure 3.1: Future Hornsby RSL Precinct Traffic Distribution

### 4. MODELLING METHODOLOGY

### 4.1 MODEL SCOPE

Bitzios Consulting had previously updated the Hornsby Shire VISUM model for the entire LGA to be reflective of the 2021 network and development/traffic demands. With approval from Hornsby Shire Council, this existing model has been updated to include the Hornsby RSL Masterplan.

For the purpose of this assessment, a sub-network of the existing 2021 Hornsby Shire VISUM Network was then cut to represent the required study area for this Traffic Impact Assessment. The cut section was run again in VISUM before being exported to a VISSIM micro-simulation model for better representation of the network performance. Once in VISSIM new traffic zones and 2021 masterplan traffic volumes were input to create a 2021 base model, which provided the results for the base case. Hornsby RSL Masterplan traffic was added to the base model to assess the impacts of generated and attracted traffic in the AM and PM peaks for 2021. The assessed sub-network was cut-out for the Hornsby RSL Masterplan and is shown in Figure 4.1.



Figure 4.1: Hornsby RSL Masterplan Network Extent



The pre-existing VISUM model used for this project only included 'Cars' and 'Heavy Vehicles'. Public transport in the form of bus stops and bus routes was added to the VISSIM model to sensitively assess the network performance during peak hours.

The existing signal phasing and timing were adopted from traffic signal plans, and minor modifications were made to the signal phase timing to provide optimised signal coordination and optimisation in VISSIM.

The VISSIM network model developed for assessment of the proposed Hornsby RSL precinct development is shown in Figure 4.2.



Figure 4.2: VISSIM Network Extent

The model is based on 2021 projected traffic volumes and is modelled for the following peak periods:

- AM Peak: 8:00 a.m. to 9:00 a.m.; and
- PM Peak: 5:00 p.m. to 6:00 p.m.

### 4.2 PROPOSED 50% COMPLETION DEVELOPMENT YIELDS IN HORNSBY WEST SIDE PRECINCT

Hornsby Shire Council (HSC) revised planning controls for the Hornsby West Side Precinct to facilitate development corresponding to housing and employment targets under the NSW Government's Metropolitan Plan for Sydney 2036. The Plan's targets for Hornsby Shire include an additional 11,000 new dwellings and 9,000 new jobs by 2031, of which 3,000 are expected to be located within the Hornsby Town Centre. The 2013 Planning Proposal defines the Hornsby West Side Precinct as the commercial area adjacent to Peats Ferry Road (previously the Pacific Highway) in the immediate vicinity of Hornsby Railway Station.

The *Hornsby West Side Planning Proposal* objective is to increase the residential and employment opportunities within the Hornsby West Precinct, which is separate from the Hornsby RSL masterplan proposal. This will contribute to the achievement of the revised housing and employment targets identified under the Metropolitan Plan for Sydney 2036 while also reinforcing the role of the Hornsby Town Centre as a Major Centre with adequate employment opportunities.

The Planning controls were reviewed and an indicative development yield was generated, with approximately of 1,000 additional apartments and 18,000m<sup>2</sup> of non-residential floor space for retail and commercial uses for the Hornsby West Precinct. This was included in the 2021 VISUM models.

Figure 4.3 and Table 4.1 both show the proposed development yields in the 2021. A 50% completion of the proposed development was assumed to project traffic trips generated by and attracted to Hornsby West Side Precinct for the 2021 base scenario.



Figure 4.3: Proposed Development Yields Homsby West Side Precinct



### Table 4.1: Proposed 50% Development Completion Base Traffic Generation in Hornsby West Side 2021 (Excluding Hornsby RSL Masterplan Traffic)

				2021 Scenario (50% Completion)			
Area	Туре	Dwellings	GFA	AMIN	AMOUT	<b>PM IN</b>	<b>PM OUT</b>
A1	-						
A2	-						
B1	-						
B2	Mixed Use	69	1449	2	11	11	5
C1	-						
C2	Mixed Use	212	3964	11	36	36	19
D1	Mixed Use	151	2893	2	23	22	7
D2	Mixed Use	219	2852	7	36	34	15
E1	Mixed Use	45	179	2	8	7	4
E2	-						
E3	Mixed Use	84	1806	2	13	13	5
F1	-			0	0	0	0
F2	Mixed Use	65	1228	2	10	10	4
F3	-						
G1	-						
G2	Mixed Use	127	2175	3	20	19	8
H1	-						
H2	-						
11	-						

### 5. MODEL MODIFICATION

The VISSIM models include a range of updates to the existing 2016 road network, representative of the proposed road network in 2021. These changes include:

- the proposed signalising of the Linda Street intersection at George Street (see Figure 5.1);
- the reduced speed management on Peats Ferry Road to 40 km/h;
- the closure of Dural Lane access to Peats Ferry Road (see Figure 5.2);
- closure of Station Street access and egress points on Peats Ferry Road (see Figure 5.2);
- reconfiguration of the High Street / Peats Ferry Road intersection and road layout with the addition of a northern leg providing egress for all movements from Station Street (see Figure 5.2);
- upgrade of Peats Ferry Road / High Street intersection from give-way priority to signalised intersection (see Figure 5.2);
- conversion of existing Station Street access and egress to pedestrian friendly zone;
- alter RailwayParade at the Bridge Road/RailwayParade/George Street signalised intersection to a left-in left-out only (see Figure 5.1); and
- change southbound kerbside lane on Pacific Highwaynorth approach to the Pacific Highway/Peats Ferry Road / Bridge Road intersection to allow left turn movements only (see Figure 5.1).

The pedestrian crossing on Bridge Road east was modelled as a pedestrian priority crossing because analysis of the traffic signals peak hour Intersection Diagnostic Monitors obtained from RMS showed that the crossing was not demanded most of the time. The minimal volume of pedestrians cause minor delays representative of the low volume of pedestrian crossing phases. The cycle times for signalised intersections were based on optimised signal phasing.



Figure 5.1: Proposed Alterations to Existing Road Network



### Figure 5.2: Peats Ferry Road Alterations and Reconfiguration

The VISUM model only includes 'Cars' and 'Heavy Vehicles'. In the VISSIM model, pedestrians crossing at signalised intersections are included as well as at the two mid-block crossings on Peats Ferry Road. The mid-block crossing relocation is beneficial in providing gap opportunities for northbound vehicles turning right onto the access way from Peats Ferry Road. Buses were also coded in the option models, with existing bus routes and timing extracted from the Transport for New South Wales website.

### 6. **NETWORK PERFORMANCE**

### 6.1 **PERFORMANCE CRITERIA**

The Level of Service (LoS) for key intersections was assessed based on average delay in accordance with the Roads and Maritime Services criteria as shown in Table 6.1.

Level of Service (LoS)	Average Delay per vehicle (sec/veh)	Description
А	≤14	Good operation
В	15 to 28	Good with acceptable delays and space capacity
С	29 to 42	Satisfactory
D	43 to 56	Operating near capacity
E	57 to 70	At capacity
F	> 70	Unsatisfactory

 Table 6.1:
 Level of Service Criteria

For signalised intersections, the average delay for all movement has been used. For roundabouts and priority controlled intersections, the critical criteria for assessment is the movement with the highest delay per vehicle.

### 6.2 INTERSECTION PERFORMANCE

Eleven (11) key intersections were assessed in the model. These included:

- Peats Ferry Road/Coronation Street signalised intersection;
- Peats Ferry Road/Station Street/ High Street signalised intersection;
- Peats Ferry Road/William Street signalised intersection;
- Peats Ferry Road/Pacific Highway/Bridge Street signalised intersection;
- Bridge Road/ RailwayParade signalised intersection;
- Bridge Road/ Jersey Street North signalised intersection;
- Pacific Highway/ Edgeworth David Avenue signalised intersection;
- Pacific Highway/Peats Ferry Road/ George Street signalised intersection;
- Ashley Street/ Forbes Street priority intersection;
- George Street/ Burdett Street signalised intersection; and
- George Street/Linda Street signalised intersection.

The base network performance for these intersections as analysed in VISSIM is shown in Figure 6.3. Figure 6.4 shows the intersection performance with the masterplan traffic included in the network. A detailed intersection summary is also shown in Table 6.2.



From the VISSIM model, it was calculated that the additional 61 vehicles per hour in the network in the AM peak is expected to have minimal impact on the performance of intersections. The level of service and performance of key intersections are shown to be similar to base conditions. The queueing in the AM Peak is experienced predominantly in the northern areas of Pacific Highway, Jersey Street North, Peats Ferry Road and Bridge Road, as shown in Figure 6.1.



Figure 6.1: Typical 2021 AM Base Case Queueing



The PM peak is shown to be the critical peak, with an estimated additional 150 vehicles per hour generated by the proposed Hornsby RSL Masterplan. The calculated performance of the surrounding intersections shows the masterplan would have a minimal impact on delays and Levels of Service. Part of the reason for this is the base model shows extensive queues on the edges of the local network (for example intersections along Pacific Highwayand George Street), but the performance of intersections are still within acceptable limits. The queuing in the PM Peak for the network is shown in Figure 6.2.



Figure 6.2: Typical 2021 PM Base Case Queueing


The high average delays at the signalised intersection were due to the short green times for the minor approaches, combined with a long cycle time and the pedestrian phase being called every cycle (which is simply a limitation of the modelling). In reality, during operation of the traffic signals, some pedestrian phases may not be called, and additional green time would be given to the required side street phases. With proper signal phasing and timing coordination in SCATS, the extensive queuing and high average delay on minor approaches as shown in Table 6.2 may be reduced.



Figure 6.3: Base Model Intersection Performance (AM and PM Peak)



Figure 6.4: With Proposed Development Traffic Intersection Performance (AM and PM Peak)



The results shown in Figure 6.3 and Figure 6.4 show slightly reduced levels of service in both peak periods when Hornsby RSL Masterplan traffic is added to the network. These reductions occur at the intersection of High Street and Peats Ferry Road, which is the major access to Hornsby RSL, in the PM Peak along with the intersection of George Street and the Pacific Highway and the intersection of Bridge Street and Jersey Street North. The AM Peak sees a reduction in the level of service from A to B at the intersection of Pacific Highway and Edgeworth David Avenue. However, the reduced levels of service equate to overall increases in delays of only a few seconds in general, which is negligible, and the levels of service are within acceptable limits as indicated in the Roads and Maritime Services guidelines where LoS D is typically the acceptable lower limit in urban conditions. The breakdown of the projected increases to vehicle delays are shown as follows:

- Peats Ferry Road/High Street
  - AM Peak: 3 second
  - PM Peak: 14 seconds
- Peats Ferry Road/Pacific Highway/George Street
  - AM Peak: 0 seconds
  - PM Peak: 2 seconds
- Pacific Highway/ Edgeworth David Avenue
  - AM Peak: 2 seconds
  - PM Peak: 7 seconds

Reductions in levels of service were also incurred at the intersection of Bridge Road and Jersey Street North in the PM Peak (3 seconds). One intersection showed minor improvement in levels of service with the additional masterplan traffic in the network, Peats Ferry Road / Bridge Road / Pacific Highway in the AM Peak. It is likely increased congestion at previous intersections allows fewer vehicles through to the intersections in question which in turn produces results with slightly fewer vehicles and reduced delays. Overall the performance of the intersections as a whole remains very similar.

The base models showed vehicles unable to enter in the given evaluation period (1 hour peak in the AM and PM) which show the network is experiencing high levels of congestion prior to any additional traffic from the Hornsby RSL Masterplan. Entrances to the model from the north such as Pacific Highway (north), Jersey Street North and Bridge Street (east) all experience vehicles unable to enter the model in the AM Peak. Pacific Highway (south) has vehicles unable to enter the model in the PM Peak. These trends are not alarming however and follow theoretical traffic patterns from northern Sydney with a majority of traffic heading towards the city in the AM and out of the city in the PM.

The minor increases in delay in combination with the evidence of a congested base network in both peak periods show the reduction in level of service is not as severe as it could be interpreted and traffic from the Hornsby RSL Masterplan will have a negligible impact on the traffic network.



	2021 Base						2021 With	Hornsby <b>R</b>	SL Masterplan Ti	raffic	
Арр	roach	Volume (veh)	Average Delay (s)	Level of Service (LOS)	Average Queue Length (m)	Maximum Queue Length (m)	Volume (veh)	Average Delay (s)	Level of Service (LOS)	Average Queue Length (m)	Maximum Queue Length (m)
Peat	s Ferry Road / Coronatio	n Street Inter	rsection								
	Coronation Street (W)	2	19	LOSB	0	5	2	20	LOSB	0	5
	Peats Ferry Road (S)	656	16	LOSB	15	76	656	18	LOSB	15	73
AM	Peats Ferry Road (N)	654	57	LOSD	15	205	699	51	LOSD	25	212
	Coronation Street (E)	139	45	LOSD	15	66	99	43	LOSC	5	42
	Total Intersection	1451	37	LOSC	28	205	1456	36	LOSC	37	212
	Coronation Street (W)	52	33	LOSC	2	14	52	34	LOSC	2	14
PM	Peats Ferry Road (S)	992	4	LOSA	6	74	986	4	LOSA	5	39
1 111	Peats Ferry Road (N)	376	16	LOSB	10	76	332	21	LOSB	6	89
	Coronation Street (E)	203	25	LOSB	6	42	203	26	LOSB	6	49
	Total Intersection	1623	11	LOSA	6	76	1631	11	LOSA	6	89
Peat	s Ferry Road / High Stree	et/ Station St	reet								
	Peats Ferry Road (NW)	664	12	LOSA	9	43	666	9	LOSA	7	54
	High Street (S)	205	35	LOSC	8	75	212	43	LOSC	11	83
AM	Station Street (N)	36	38	LOSC	2	21	75	29	LOSC	3	27
	Peats Ferry Road (E)	537	12	LOSA	10	99	538	13	LOSA	11	99
	Total Approach	1442	16	LOSB	6	99	1491	17	LOSB	6	99
PM	Peats Ferry Road (NW)	444	4	LOSA	3	53	453	7	LOSA	5	53
	High Street (S)	193	83	LOSF	23	79	216	147	LOSF	55	126

		2021 Base	9				2021 With Hornsby RSL Masterplan Traffic				
Арр	roach	Volume (veh)	Average Delay (s)	Level of Service (LOS)	Average Queue Length (m)	Maximum Queue Length (m)	Volume (veh)	Average Delay (s)	Level of Service (LOS)	Average Queue Length (m)	Maximum Queue Length (m)
	Station Street (N)	69	31	LOSC	3	26	69	30	LOSC	3	26
	Peats Ferry Road (E)	839	42	LOSC	40	102	833	26	LOSB	40	95
	Total Intersection	1564	24	LOSB	9	102	1593	38	LOSC	20	126
Peat	s Ferry Road / William St	reet									
	Peats Ferry Road (N)	744	11	LOSA	14	44	752	10	LOSA	12	43
AM	William Street	128	33	LOSC	5	26	131	32	LOSC	6	27
AIVI	Peats Ferry Road (S)	556	6	LOSA	7	59	563	6	LOSA	7	67
	Total Intersection	1428	11	LOSA	7	59	1446	11	LOSA	6	67
	Peats Ferry Road (N)	492	9	LOSA	5	44	501	8	LOSA	5	44
PM	William Street	141	36	LOSC	6	37	142	35	LOSC	6	43
PIVI	Peats Ferry Road (S)	668	8	LOSA	15	70	669	7	LOSA	14	67
	Total Intersection	1541	11	LOSA	8	70	1544	12	LOSA	8	67
Peat	s Ferry Road /Pacific Hig	hway/Bridge	e Street Inter	section				•	1		
	Bridge Road (E)	376	47	LOSD	18	63	378	50	LOSD	19	72
	Peats Ferry Road	482	33	LOSC	23	79	480	40	LOSC	34	132
AM	Bridge Road (W)	143	71	LOSF	42	99	149	72	LOSF	18	66
	Pacific Highway	1234	3	LOSA	52	299	1273	2	LOSA	132	299
	Total Intersection	2235	31	LOSC	78	299	2280	26	LOSB	69	299
	Bridge Road (E)	557	31	LOSC	17	120	556	33	LOSC	18	85
PM	Peats Ferry Road	987	20	LOSB	23	123	987	23	LOSB	26	89
FIVI	Bridge Road (W)	128	40	LOSC	9	46	99	55	LOSD	52	40
	Pacific Highway	771	NA	NA	61	251	800	NA	NA	52	185

		2021 Base	5				2021 With	Hornsby R	SL Masterplan Ti	raffic	
Approach		Volume (veh)	Average Delay (s)	Level of Service (LOS)	Average Queue Length (m)	Maximum Queue Length (m)	Volume (veh)	Average Delay (s)	Level of Service (LOS)	Average Queue Length (m)	Maximum Queue Length (m)
	Total Intersection	2443	22	LOSB	35	251	2471	23	LOSB	33	213
Peat	s Ferry Road / George S	treet / Pacific	HighwayInt	ersection							
	George Street	1383	16	LOSB	14	85	1391	16	LOSB	17	200
	Westfield	33	84	LOSF	3	20	33	84	LOSF	3	20
AM	Pacific Highway	1477	13	LOSA	11	85	1474	13	LOSA	25	101
	Peats Ferry Road	701	61	LOSE	42	106	728	61	LOSE	38	106
	Total Intersection	3594	25	LOSB	19	106	3626	24	LOSB	18	200
	George Street	1112	74	LOSF	127	254	1069	77	LOSF	124	258
	Westfield	518	108	LOSF	67	81	515	112	LOSF	68	81
PM	Pacific Highway	1055	28	LOSB	28	126	1,051	30	LOSC	29	106
	Peats Ferry Road	999	30	LOSC	35	57	991	33	LOSC	37	76
	Total Intersection	3684	54	LOSD	58	254	3626	56	LOSE	58	258
Bridg	ge Road / Jersey Street N	lorth Intersed	ction		•	-	1				
	Bridge Road (E)	787	7	LOSA	7	70	792	7	LOSA	8	70
AM	Bridge Road (W)	709	38	LOSC	31	116	695	35	LOSC	28	111
Aw	Jersey Street North	1239	59	LOSE	231	373	1250	57	LOSE	207	373
	Total Intersection	2735	38	LOSC	93	373	2737	37	LOSC	83	373
	Bridge Road (E)	1965	11	LOSA	29	120	1962	10	LOSA	28	82
	Bridge Road (W)	662	53	LOSD	42	123	674	68	LOSE	55	136
PM	Jersey Street North	961	34	LOSC	35	46	961	37	LOSC	37	160
	Total Intersection	3588	25	LOSB	41	123	3597	28	LOSC	47	160

		2021 Base	e				2021 With	HornsbyR	SL Masterplan Ti	raffic	
Арр	roach	Volume (veh)	Average Delay (s)	Level of Service (LOS)	Average Queue Length (m)	Maximum Queue Length (m)	Volume (veh)	Average Delay (s)	Level of Service (LOS)	Average Queue Length (m)	Maximum Queue Length (m)
Bridg	ge Road / George Street	/RailwayPar	ade								
	Bridge Road (W)	1897	4	LOSA	5	66	1892	4	LOSA	5	65
AM	George Street	481	45	LOSD	22	89	483	46	LOSD	23	90
Aw	Bridge Road (E)	361	212	LOSF	146	216	361	221	LOSF	146	218
	Total Approach	2739	39	LOSC	55	216	2736	40	LOSD	55	218
	Bridge Road (W)	1497	4	LOSA	7	74	1,501	4	LOSA	5	74
PM	George Street	1193	62	LOSE	141	302	1,196	63	LOSE	131	301
PIVI	Bridge Road (E)	820	94	LOSF	132	216	820	84	LOSF	103	216
	Total Intersection	3510	45	LOSD	54	302	3517	43	LOSD	59	301
Pacit	fic Highway/ Edgeworth	David Avenu	e								
	Pacific Highway(N)	1826	7	LOSA	10	83	1848	8	LOSA	14	103
	Pacific Highway(S)	1357	18	LOSB	26	135	1345	23	LOSB	42	349
AM	David Edgeworth Avenue	651	44	LOSD	30	150	656	45	LOSD	31	112
	Total Intersection	3834	14	LOSA	21	150	3849	19	LOSB	25	349
	Pacific Highway(N)	1539	15	LOSB	19	104	1,509	16	LOSB	26	105
	Pacific Highway(S)	1391	57	LOSE	318	455	1,364	65	LOSE	339	458
PM	David Edgeworth Avenue	732	74	LOSF	70	134	729	28	LOSB	88	134
	Total Intersection	3662	43	LOSD	107	455	3602	50	LOSD	120	458
Ashle	ey Street / Forbes Street	Intersection									
AM	Ashley Street (E)	181	0	LOSA	0	0	197	0	LOSA	0	0

		2021 Bas	9				2021 With Hornsby RSL Masterplan Traffic				
Арр	roach	Volume (veh)	Average Delay (s)	Level of Service (LOS)	Average Queue Length (m)	Maximum Queue Length (m)	Volume (veh)	Average Delay (s)	Level of Service (LOS)	Average Queue Length (m)	Maximum Queue Length (m)
	Forbes Street (S)	37	1	LOSA	0	9	15	2	LOSA	0	10
	Ashley Street (W)	171	0	LOSA	0	0	166	0	LOSA	0	0
	Total Intersection	389	1	LOSA	0	9	378	1	LOSA	0	
	Ashley Street (E)	214	0	LOSA	0	0	249	1	LOSA	0	0
PM	Forbes Street (S)	164	2	LOSA	0	14	167	18	LOSB	4	58
LIN	Ashley Street (W)	26	0	LOSA	0	0	49	0	LOSA	0	0
	Total Intersection	404	1	LOSA	0	14	465	8	LOSA	2	58
Geor	ge Street / Linda Street	Intersection									
	Linda Street	30	38	LOSC	2	15	29	39	LOSC	2	33
AM	George Street (N)	1276	15	LOSB	16	147	1278	16	LOSB	17	144
<i>P</i> ivi	George Street (S)	859	27	LOSB	30	138	855	27	LOSB	30	164
	Total Intersection	2165	20	LOSB	16	147	2162	21	LOSB	16	164
	Linda Street	180	50	LOSD	15	116	172	52	LOSD	17	104
PM	George Street (N)	876	3	LOSA	2	91	871	4	LOSA	3	88
LIN	George Street (S)	1512	37	LOSC	123	257	1521	26	LOSB	74	262
	Total Intersection	2568	26	LOSB	56	257	2564	20	LOSB	37	262
Geor	ge Street / Burdett Stree	et Intersection	า		•		1	-			
	George Street (S)	818	4	LOSA	2	27	814	4	LOSA	3	31
AM	George Street (N)	1257	6	LOSA	5	75	1262	6	LOSA	8	83
AIVI	Burdett Street (E)	424	41	LOSC	25	91	424	41	LOSC	26	91
	Total Intersection	2499	11	LOSA	11	91	2500	11	LOSA	12	91

	2021 Base							2021 With Hornsby RSL Masterplan Traffic					
Approach		Volume (veh)		Level of Service (LOS)	Average Queue Length (m)	Maximum Queue Length (m)	Volume (veh)	Average Delay (s)	Level of Service (LOS)	Average Queue Length (m)	Maximum Queue Length (m)		
		George Street (S)	1229	16	LOSB	14	134	1216	20	LOSB	26	224	
	РМ	George Street (N)	842	50	LOSD	65	202	807	58	LOSE	93	263	
		Burdett Street (E)	875	45	LOSD	69	140	875	23	LOSB	70	162	
		Total Intersection	2946	34	LOSC	50	202	2898	38	LOSC	63	263	

### 6.3 TRAVEL TIME COMPARISON

Travel time markers were set up in the VISSIM Model to quantify the impact the proposed Hornsby RSL Masterplan will have on travel time on Peats Ferry Road. The travel time markers were strategically selected to provide an indication of the travel time between intersections for through traffic. Markers were set up as shown in Figure 6.5.



Figure 6.5: Travel Time Marker Locations

The time for each section and the overall time for the northbound and southbound routes are shown in Table 6.3.

				Travel Time			
Direction	Intercept	Distance (m)	Section	AM Base	AM RSL	PM Base	PM RSL
	Pacific Hwy	87	1	0:00:12	0:00:12	0:00:28	0:00:30
pui	High St	195	2	0:00:20	0:00:22	0:00:35	0:00:37
Northbound	William St	247	3	0:00:12	0:00:12	0:00:11	0:00:11
Nor	Dural St	377	4	0:00:20	0:00:20	0:00:16	0:00:16
	Coronation St	468	5	0:00:22	0:00:23	0:00:13	0:00:13
Total				0:01:26	0:01:29	0:01:43	0:01:47
_	Dural St	61	7	0:00:11	0:00:15	0:00:06	0:00:06
Southbound	William St	204	8	0:00:48	0:00:48	0:00:26	0:00:28
outht	High St	259	9	0:00:14	0:00:14	0:00:10	0:00:09
S	George St	363	10	0:01:05	0:01:05	0:00:53	0:01:58
Total				0:02:18	0:02:22	0:01:36	0:01:41

Table 6.3: Travel Time Comparison

The results in Table 6.3 show marginal increases in travel time for each peak period with a maximum change of 3-5 seconds. The results are within acceptable limits and demonstrate additional traffic generated by and attracted to the newly developed Hornsby RSL would not cause significant delays within the network. The change in travel time between the base and masterplan traffic scenarios for northbound travel on Peats Ferry Road is shown in Figure 6.6 with southbound travel shown in Figure 6.7.



Figure 6.6: Base Case vs Masterplan Traffic Northbound Travel Time Comparison



Figure 6.7: Base Case vs Masterplan Southbound Traffic Travel Time Comparison



### 7. **CONCLUSION**

The proposed HornsbyRSL Masterplan was assessed using a VISSIM microsimulation traffic model. The key findings were:

- An addition of 61 vehicles per hour in the AM peak and 150 vehicles per hour in the PM Peak would be expected spread across the adjacent road network;
- The proposed HornsbyRSL Masterplan is not expected to significantly affect the AM or PM Peak network performance;
- The performance of Peats Ferry Road/High Street intersection is expected to slightly reduce but maintain a LoS B in in the AM Peak and reduce from LoS B to LoS C in the PM Peak with the masterplan-generated traffic, which is within acceptable limits;
- The performance of Peats Ferry Road/George Street/ Pacific Highway is expected to reduce from LoS D to LoS E in the PM peak with the masterplan-generated traffic, although the increased delay is 2 seconds only;
- The performance of Pacific Highway/ Edgeworth David Avenue intersection is expected to reduce from LoS A to LoS B in the AM Peak with the masterplan-generated traffic, which is within acceptable limits;
- The 2021 AM and PM Peak base models are at capacity, as shown by queueing in Figure 6.2; and
- Both the AM and PM peak models show that masterplan-generated traffic would not be expected to
  have a significant impact on the base road network. With sensitive signal phasing and timing
  coordination in SCAT S, the queuing and high average delay on minor approaches that is currently
  experienced and maybe exacerbated to some extent with the masterplan could be reduced.

Overall, the Hornsby RSL Masterplan is in an area that already has some congestion issues in the afternoon peak period. The development traffic dissipates across the road network and beyond its immediate intersections has little effect. At local access intersections, there may be some reductions of Levels of Service, however; these are within limits ordinarily accepted in urban environments in Sydney. Furthermore, the masterplan components introduce more mixed use into the area which is aligned with the needs of a town centre and capitalises on its proximity to the rail station, the potential for multi-purpose tripmaking and the ability to attract more pedestrian trips rather than vehicle trips.



### **Hornsby RSL Club**



### Hotel Feasibility Study – Preliminary Feasibility Study

REVA 5 May 2016

#### ALTIS architecture pty ltd.

lower deck, jones bay wharf 123 / 26-32 pirrama road pyrmont, nsw 2009 T +612 9364 9000 F +612 9571 7930 www.altisarchitecture.com arc@altisarchitecture.com



## Contents

PART 1	Feasibility Framework	6
1.1	Supply/Demand Dynamics	7
1.2	Comparing competitiveness	8
1.3	Occupancy & Average Rates	. 10
1.4	Hotel Revenue Projections	. 12
1.5	Hotel Expense Projections	. 16
1.6	Net Operating Income Model	. 18
1.7	Conclusion	. 19



#### Introduction

The following report is to provide a statistical, research and evidence based framework to support the viability of the proposed hotel development by the Hornsby RSL Club as an addition to the existing Hornsby RSL club complex. According to the position paper, *Creating A Long Term Future For the Sydney Hotel Industry* by Tourism Accommodation Australia (TAA - NSW, 2012), the Sydney hotel market is the largest in the country and has performed well in recent years, occupancy rates in the Sydney hotel market have been particularly high (above 80%), which represent the highest occupancy rates achieved in the market for more than two decades.

Despite a strong performance, there has been very limited hotel room supply growth in Sydney as the development of new, stand-alone, greenfield hotel properties in Sydney is difficult and there are numerous barriers to development of hotels in Sydney which effect the viability of such projects. The more significant barriers include:

Increasingly High Land Costs, given the characteristics required for a successful hotel site and the ever present competition with other land use types which exacerbates the situation. From the end product point of view, the development and capital cost presents a compelling factor driving renewed interest in the 3-star space is the substantially lower development and ongoing maintenance costs. The land cost component is typically much cheaper than 4 and 5-star locations, due to the ability to operate 3-star properties in secondary, suburban/metropolitan locations.

However in this instance, the land has the attributes of a 4 or 5-star site as it is situated in a prominent and well serviced location within the Hornsby Town Centre catchment. Furthermore, the land is owned and supplied by the club and the associated capital investment cost will only be partially factored into the overall development cost.

### ALTIS architecture

- Access to Financing, it is often more difficult to secure financing for hotel developments compared with other property development projects (such as residential or office). Unlike residential, financing is not possible through pre-sales or lease pre-commitments as is the case for commercial/retail projects. For the proposed Hotel at the Hornsby RSL Club complex, the club will be financing the project, through a staged development process on other adjoining sites, owned by the club, avoiding this added layer of complexity and typical barrier to the successful delivery of the project. Refer to the planning proposal document for the proposed developments on the clubs sites.
- High and Increasing Construction Costs, which is the result of strong demand for construction materials and skilled construction labourers across Sydney in general. Furthermore, Hotels (as Class 3 buildings) generally cost more to build (on a sq.m basis) as they require additional amenity and safety features than other competing land uses such as residential (being Class 2, buildings). The cost of construction is substantially lower, with smaller room sizes (typically 20-24 sq.m, compared to 30 sq.m plus in 4 & 5-star), less back of house area, less food and beverage and conferencing space and substantially less room fitout costs.

The existing club facilities have significant synergies with that of a hotel and it is crucial to identify and acknowledge these synergies as they will contribute to the support of the future hotel. The existing facilities and infrastructures (e.g. parking, administration, operational and servicing, food and beverage premises) have the capacity to accommodate and support the future hotel and the cost associated will be proportionally allocated to the club, the current venues and the proposed new hotel.

The pre-existing back of house area, food and beverage (F&B) offerings and conferencing space within the club complex provides the proposed



future hotel with the ability to be of a higher standards with greater star rating without the need for a significant upfront expenditures.

The document is structured in two parts. Part one focuses on the feasibility analysis for the proposed hotel addition and provides statistical data in support of the viability of the projects and part two is to outline the hotel business plan which supplements the feasibility with a road map in combining strategy, operations and financial forecasts for the Client/Owners to support the viability of the project.



# Feasibility Framework



The study is intended to ascertain the viability of the proposed hotel addition to the Hornsby RSL Club complex. The methodology for this feasibility study is based on the comparison of statistical data available for this Sub-Region, North Sydney, and on similar offering in the respective catchment.

A case study giving supporting data from similar successful precedents (i.e. precedents of hotel additions to existing club complex) will also demonstrate how the proposed model can stack up, operate and perform successfully.

#### 1.1 SUPPLY/DEMAND DYNAMICS

The North Sydney Sub-Region comprises the local government areas of Lane Cove, Manly, North Sydney, Ryde, Hornsby and Willoughby.

Statistics pertaining to the supply, demand and performance of North Sydney's accommodation market have been sourced from Report by Jones Lang LaSalle (JLL), Visitor Accommodation Supply Study for NSW Trade and Investment November 2014. (See appendix A for full detail report) underpinned by the *Survey of Tourist Accommodation, The National and International visitor surveys* and *STR Global.* 

In brief, analysis of the *purpose of visit* highlights that growth is being underpinned by the domestic business and leisure segments with growth in visitor nights in Hotels, Motels, Guesthouses and Serviced Apartments (HMGSA) averaging 8.1% and 4.9% per annum respectively over the eight year period.

The leisure segment dominates overall accounting for 43.0% of visitor nights in 2013 which is above the eight-year average of 41.5%.<sup>1</sup>

Hotels are the most common accommodation type in North Sydney (2,265 rooms or 53.3% of total room supply) with a fairly diverse spread across all grades. However for Hornsby, serviced accommodation provides for a significant portion of the local market room inventory.

<sup>&</sup>lt;sup>1</sup> Page 71, JLL, Visitor Accommodation Supply Study for NSW Trade and Investment November, 2014



#### 1.2 COMPARING COMPETITIVENESS

The immediate catchment area is illustrated in the diagram below. For the purpose of a comparative competitiveness, the review should quantify existing hotels, accommodation facilities, quality segments, rooms and total supply within the catchment and compare available criteria's such as star rating, capacity, rates, services, venues etc. across number of quantifiable attributes for accuracy. This study relies on the available data for the Sub-Region as detailed local statistical data is not available for the identified accommodation options within the immediate catchment. However, a cursory review of the accommodation has provided the comparative information as noted in the Accommodation Comparison Table 01 on the following page.

- Hornsby RSL Club
- 1 Waldorf Hornsby Apartments
- 2 Avanti By Meriton
- 3 Hornsby Railway Hotel
- 4 The Hornsby Inn
- 5 Waldorf Waitara Apartments
- 6 The Blue Gum Hotel
- 7 Waldorf Wahroonga Apartments
- 8 Golden Chain Ascot Motor Inn



#### **ACCOMMODATION COMPARISON TABLE 01**

		★ RATING	CAPACITY	RATES (\$) PER NIGHT	SERVICES / VENUES
	HORNSBY RSL CLUB HOTEL	*** INTENDED	114 INTENDED	200	F&B, CONFERENCING, FUNCTION SPACES, PARKING,
L	WALDORF HORNSBY APARTMENTS	★★ FROM VISITOR REVIEW	VARIED	185-215 ESTIMATED	ON-SITE CARETAKER, INTERNET, OFF SITE PARKING
2	AVANTI BY MERRITON	NO INFORMATION AVAILABLE &	AVAILABILITY FOR S	ERVICED APARTME	NTS IS TO BE CONFIRMED
3	HORNSBY RAILWAY HOTEL	PUB STYLE BUDGET	UNKNOWN	170 PER WEEK	FUNCTION SPACE
4	THE HORNSBY INN	★★★ FROM VISITOR REVIEW	10 ROOMS	109-145	PARKING
5	WALDORF WAITARA APARTMENTS	***	18 APARTMENTS	185-220 MIN. STAY REQ.	OUTDOOR POOL
6	THE BLUE GUM HOTEL	NOT RATED	11 ROOMS	120-220	FUNCTION ( UP TO 120), F&B
7	WALDORF WAHROONGA APARTMENTS	***	13 APARTMENTS	165	PARKING
3	GOLDEN CHAIN ASCOT MOTOR INN	★★★ FROM VISITOR REVIEW	37 MOTEL ROOMS	110-220	CONFERENCE IN THE 100 SEA RESTAURANT, OUTDOOR POOL INTERNET, PARKING (INCLUDING BOATS AND TRAILERS)
	ibis Hotel Thornleigh	***	105	125-165	RESTAURANT, BAR, PARKING LAUNDRY AND DRY CLEANING 24HR FRONT DESK, WI-FI BAGGAGE SERVICE, BUSINES CENTRE, FACILITIES FOI DISABLED GUESTS.

The general and cursory review of the available accommodation reveals that:

- There are very limited availability in the Upscale Segment (4-star and above) in the local market;
- Accommodation market and the available capacity is dominated by serviced accommodation options where guest services and facilities are limited or not offered;



- Accommodation options take little advantage of synergies with complimentary uses such conferencing and function venues;
- There are limited availability of hotel rooms within the Hornsby's core centre.

These early indicators suggest that the market has the capacity, within the upscale segment, for a hotel type offering within the close proximity of the civic and transport core of Hornsby.

#### 1.3 OCCUPANCY & AVERAGE RATES

The information provided here have been extrapolated from the available data for the North Sydney Sub-Region and based on the data from the Australian Bureau of Statistics (ABS) of 2013.

According to ABS, there were 46 establishments with 3,616 rooms at the end of June 2013 which represents 26.9% of Sydney Metropolitan's total accommodation supply. Over the ten years to 2012, North Sydney's accommodation market has recorded slight Revenue per Available Room (RevPAR) increasing on average by 2.5% per annum which represents a considerably lower rate than that which has been achieved across the broader metropolitan area. Growth has been underpinned by gains in both occupancy and Average Daily Rate (ADR)<sup>2</sup>.

Over the five years to 2013, North Sydney has recorded RevPAR growth increasing on average by 2.8% per annum and with only two years of decline in 2009 and 2012. RevPAR was at the highest level ever recorded in 2013 at \$131. Growth has moderated over the first six months of 2014, up 2.8% year-on-year.

Occupancy levels have recorded growth over the five year period, increasing at an average rate of 1.5% per annum. Occupancy levels were at their highest level ever achieved in 2013 at 76.8% and have recorded a slight uptick during the first six months of 2014 to average 75.2% (+0.9%). ADR growth over the five year period has been modest, increasing on average by 1.3% per annum. Room rates were also at the highest level ever recorded in 2013 at \$171. Growth has

<sup>&</sup>lt;sup>2</sup> Australian Bureau of Statistics 2013



continued during the first six months of 2013, increasing 1.8% year-on-year to \$172<sup>3</sup>. Available data on performance to June 2014 has been illustrated in Table-02 on the following page.





 $<sup>^{\</sup>rm 3}\,$  NSW Accommodation Supply Study – Part One November 2014

 $<sup>^{\</sup>rm 4}$  Sourced from JLL, Visitor Accommodation Supply Study for NSW Trade and Investment



#### 1.4 HOTEL REVENUE PROJECTIONS

The additional revenue the club will generate by building a hotel will be both direct and indirect.

The direct revenue will be generated from the total amount of revenue generated from renting out hotel rooms in a single year. This is explained further below under:

• Total Hotel Nights.

The indirect revenue will be generated from additional profits in existing club venues. These can be broken up as follows:

- Increased Conferencing Profits
- Increased Food and Beverage Profits

#### **Direct Revenue**

#### **Total Hotel Nights**

The total hotel nights is based on the proposed hotel rooms multiplied by the number of nights the hotel will be operational per year.

Hotel Room 114 x Hotel Nights 365 = Total Hotel Room Nights 41,610

#### **Occupancy Rate**

We are basing the occupancy rate on the existing occupancy rate of the North Sydney region which is 75% as outlined in above. To allow for some sensitivity in the market we are also going to apply a rate of 70% and 80% to allow for various scenarios

Average Daily Rate.

Based on the current market an average daily rate of \$180 per room will be used.

#### Hotel Revenue

The hotel revenue is based on the total number of hotel nights multiplies by the occupancy rate, multiplied by the average daily rate.

The following is an example of the hotel revenue based on an occupancy rate of 75%.



Hotel Room Nights 41,610 x Occupancy rate 0.75 x Average Daily Rate \$180 = Hotel Revenue \$5,617,350.00 per annum.

For the three scenarios mentioned above, the hotel will generate revenue as per the table below.

	80.00% occupancy	75.00% occupancy	70.00% occupancy
Hotel revenue (average of \$180	\$5,991,840	\$5,617,350	\$5,242,860
per room)			

#### **Indirect Revenue**

#### **Increased Conferencing Profits**

Hornsby RSL currently has a showroom and three recently renovated function rooms. The rooms have various capacities as per the table below.

Room/	Theatre	Classroom	Banquet	Cocktail	Days	Occupancy
Configuration					Booked	
Showroom	1000	250	640	800	223/365	61.10%
Acacia Room	70	30	70	80	214/365	58.63%
Waratah	50	20	30	60	190/365	52.05%
Room						
Boronia Room	70	30	70	80	229/365	62.74%

The showroom and functions currently run at an occupancy rate of 58.63%. Based on past enquiries, this could be increased if the club had a hotel as some larger conferences have decided to use other venues in the past due to the lack of accommodation. The conferencing facility currently runs at a profit of \$343,038.00. It is estimated that functions and conferencing would increase by 20% based on a similar 20% increase in functions bookings experienced by Rooty Hill RSL when they built their hotel. The increase is also based on the number of inquiries the club have had to hold functions/ conferences at the club and have also requested accommodation. The following is a sample of conference type functions the club had (or have had enquiries about) that have requested accommodation.

• Retirement Village Expo run over 2 days the week before Easter, exhibitors from all over the country, some of them had to stay as far away as Castle Hill.



- RSL Association Conference, want us to complete a tender for their conference over 3 days with 500+ delegates from all over the country, but we offer no accommodation, so that will be a big problem.
- Department of Education
- Department of Defence Investment
- Clubs International Women's Day, state wide event
- Bruttour International, 3 day conference in May
- Heia NSW division Professional Teachers Council conference
- Electrical Trade Union
- Wrigleys
- Family & Community Services
- SAN Hospital

• Sydney Church of Christ (1,000 delegates from all over the world An increase of 20% would result in a direct additional profit of **\$68,607.60** based

on the inclusion of a hotel.

#### **Increased Food and Beverage Profits**

The club currently has a number of food and beverage outlets including:

- Level 1 lounge
- The Courtyard
- Palms Café
- Frank Gill Lounge
- Sports Bar

As well as the above mentioned venues, the club also has development application for a new restaurant on level 2 which will be completed by the time the hotel would be constructed.

We are basing the increase in food and beverage sales on 50% of hotel guests having breakfast at the club and 30% of guests having an evening meal. The following table shows the number of meals associated with the hotel for the various occupancy rates. We have assumed there are 2 people per room.



	80% Occupancy	75% Occupancy	70% Occupancy
Hotel Room	33,288	31,207	29,127
Nights			
Guests	66,576	62,414	58,254
Breakfast Meals	33,288	31,207	29,127
Breakfast selling	\$16	\$16	\$16
price			
Gross Profit	\$9.60	\$9.60	\$9.60
Margin*			
Total breakfast	\$319,564.80	\$299,587.20	\$279,616.20
profit			
Evening Meals	19,973	18,724	17,476
Evening meal	\$32	\$32	\$32
selling price			
Gross Profit	\$19.20	\$19.20	\$19.20
Margin*			
Total evening	\$383,481.60	\$359,500.80	\$335,539.20
meal profit			
Total additional	\$703,046.40	\$659,088.00	\$615,155.40
Food & Beverage			
profit			

\*The gross profit margin is based on Hornsby RSL's current profit per meal

#### Total indirect profit

	80% Occupancy	75% Occupancy	70% Occupancy
Conferencing	\$68,607.60	\$68,607.60	\$68,607.60
Food and	\$703,046.40	\$659,088.00	\$615,155.40
Beverage			
Total	\$771,654.00	\$727,695.60	\$683,763.00



#### 1.5 HOTEL EXPENSE PROJECTIONS

The hotel expenses can be broken down into the following categories.

- General admin including staff costs
- Electricity, water, maintenance and miscellaneous utilities
- Franchise/management fees.
- Sales and Marketing
- Construction Cost and Depreciation

#### **General Admin including staff costs**

This will include staff costs excluding hotel manager which is covered as part of the franchise fees outlined below.

	80% Occupancy	75% Occupancy	70% Occupancy
Wages (Reception)	\$544,000.00	\$544,000.00	\$544,000.00
Wages (Cleaning/	\$497,687.00	\$497,687.00	\$497,687.00
Room Service)			
Superannuation	\$108,755.00	\$108,755.00	\$108,755.00
Insurance	\$60,000.00	\$60,000.00	\$60,000.00
Workers Comp	\$90,000.00	\$90,000.00	\$90,000.00
Total	\$1,300,442.00	\$1,300,442.00	\$1,300,442.00

#### Utilities

The following table has been compiled based on the current utility rates for the club.

	80% Occupancy	75% Occupancy	70% Occupancy
Electricity	\$230,000.00	\$230,000.00	\$230,000.00
Linen/Replacements	\$230,016.00	\$218,453.00	\$203,889.00
(\$7 per room x			
occupancy rate)			
Repairs &	\$130,000.00	\$130,000.00	\$130,000.00
Maintenance			
General			



Repairs &	\$45,000.00	\$45,000.00	\$45,000.00
Maintenance Air			
Conditioning			
Repairs &	\$35,000.00	\$35,000.00	\$35,000.00
Maintenance			
Electrical			
Depreciation	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00
Total	\$1,670,016.00	\$1,658,453.00	\$1,643,889.00

#### Franchise/Management Fees

The Franchise/Management Fees differ based on the model chosen by the club. For the purposes of the feasibility study a franchise model will be used.

Based on a Franchise Agreement with a Hotel Operator the following fees would be payable.

Fees Type	80% Occupancy	75% Occupancy	70% Occupancy
Base Management	\$209,714.00	\$196,607.00	\$183,500.00
Fee (3.5% of room			
revenue)			
Secondment of	\$134,980.00	\$134,043.00	\$133,107.00
Manager. (0.25%			
of room revenue			
plus employment			
costs of			
\$120,000.00)			
Reservation Fees.	\$359,510.00	\$337,041.00	\$314,572.00
Average of 6% of			
room revenue			
Technical Services	\$114,000.00	\$114,000.00	\$114,000.00
Fee (\$1000 per			
room)			
Total Fees	\$818,204.00	\$781,691.00	\$745,179.00



#### Sales and marketing

Marketing budget of 2% of room revenue will be applied. This will give a total marketing cost of \$127,626.19 per year

	80% Occupancy	75% Occupancy	70% Occupancy
Marketing budget	\$149,796.00	\$140,434.00	\$131,072.00
of 2% of room			
revenue will be			
applied			

#### **Total Annual Hotel Expense Projections**

	80%	75%	70%
	Occupancy	Occupancy	Occupancy
General Admin including	\$1,300,442.00	\$1,300,442.00	\$1,300,442.00
staff costs			
Utilities	\$1,670,016.00	\$1,658,453.00	\$1,643,889.00
Franchise/Management	\$818,204.00	\$781,691.00	\$745,179.00
Fees			
Sales and marketing	\$149,796.00	\$140,434.00	\$131,072.00
Total	\$3,938,438.00	\$3,881,000.00	\$3,820,562.00

#### 1.6 NET OPERATING INCOME MODEL

The net operating income model is based on the annual hotel revenue offset against the annual hotel expense.

#### **Direct Hotel Profit**

	80.00%	75.00%	70.00%
	occupancy	occupancy	occupancy
Hotel Revenue	\$5,991,840.00	\$5,617,350.00	\$5,242,860.00
Hotel Expenses	\$3,938,438.00	\$3,881,000.00	\$3,820,562.00



#### **Direct and Indirect Hotel Profit**

	80.00%	75.00%	70.00%
	occupancy	occupancy	occupancy
Hotel Profit	\$2,053,402.00	\$1,736,350.00	\$1,422,298.00
Indirect Profit	\$771,654.00	\$727,695.60	\$683,763.00
Net Profit	\$2,825,056.00	\$2,464,045.60	\$2,106,061.00

#### **Construction Cost and Depreciation**

The projected build cost for the hotel rooms, foyer and back of house dedicated to hotel is \$20,000,000.00 based on a cost plan prepared by Aquenta Consulting. An additional \$5,000,000.00 will be spent on furniture, fixtures and equipment. It is anticipated that the club will self-finance approximately \$12,500,000.00 of the build cost with the remaining \$12,500,000.00 being financed through a loan. Basing an average interest rate of 7%, interest repayments would be \$875,000 with an additional \$416,666.00 of principal repayments. This gives a total repayment of \$1,291,666.00 per year.

#### **Profit after loan repayments**

	80.00%	75.00%	70.00%
	occupancy	occupancy	occupancy
Hotel net profit	\$2,825,056.00	\$2,464,045.60	\$2,106,061.00
Repayments	\$1,291,666.00	\$1,291,666.00	\$1,291,666.00
Profit after	\$1,533,390.00	\$1,172,379.60	\$814,395.00
repayments			

#### 1.7 CONCLUSION

Based on the above information, it is feasible to run a successful at Hornsby RSL.

### Survey Results

	Jourto									
							All P	ages	Share	B Tweet G+ Share Share
Q1									409 respons	ses
	Would y Retire			ested in bject in f			'S		41 days (7/2	6/2016 - now)
1	Hornsby		ssocia				SL		4 views	
		Ar		09 Skipped:	0					
						2				
Ye	95								Need insigh	ts?
	-								SurveyMonkey h designed survey	has dozens of expertly- templates.
Ν	lo								Sign up FREE	or <u>Learn more</u>
Unsu	re									
	0% 10%	20%	30%	40% 50%	60%	70%	80%	90% 100%		
Answer Choices				Respor	885			÷.		
Yes				68.22%				279		
No				13.94%				57		
Unsure				17.85%				73		
Unsure Total				17.85%				73 409		
Total Q2	lf you we size ur	nit wo	uld yo	d in this bu be int	projec					
Total Q2		nit wo	uld yo	d in this	projec					
Total Q2	size ur	nit wo	uld yo	d in this bu be int	projec					
Total Q2 One Bedroo	size ur	nit wo	uld yo	d in this bu be int	projec					
Total Q2 One Bedroo unit with Stud	size ur <sup>m</sup> <sup>m</sup>	nit wo	uld yo	d in this bu be int	projec					
Total Q2 One Bedroo unit with Stud Two Bedroo unit with Stud	size ur m m m	nit wo	uld yo	d in this bu be int	projec					
Total Q2 One Bedroo unit with Stur Two Bedroo	size ur m m m	nit wo	uld yo	d in this bu be int	projec					
Total Q2 One Bedroo unit with Stud Two Bedroo unit with Stud	size ur my my my m	nit wo	uld yo	d in this bu be int	projec					
Total Q2 One Bedroo unit with Stud Two Bedroo unit with Stud Three Bedroo Three Bedroo	size ur my my my m	nit wo	uld yo	d in this bu be int	projec ereste					
Total Q2 One Bedroo unit with Stud Two Bedroo unit with Stud Three Bedroo Three Bedroo	size ur m m m y m y	An	uld yo	d in this ou be int 7 Skipped: 2	projec ereste	ed in?		409		
Total Q2 One Bedroo unit with Stud Two Bedroo unit with Stud Three Bedroo Unit with Stud	size ur my my y my o% 10%	An	uld yo	d in this ou be int 7 Skipped: 2	projec ereste 2 60% Rei	ed in?		409		
Total Q2 Q2 One Bedroo unit with Stud Two Bedroo Unit with Stud Three Bedroo Unit with Stud Answer Choices	size ur my my y my o% 10%	An	uld yo	d in this ou be int 7 Skipped: 2	projec ereste 22 60% Rei 9.8	ro% sponses		409		
Total Q2 Q1 Q2 One Bedroo unit with Stud Two Bedroo unit with Stud Two Bedroo Unit with Stud Answer Choices One Bedroom un	Size ur my my my 0% 10%	An	uld yo	d in this ou be int 7 Skipped: 2	projec ereste 2 60% Rei 9.8 18.	70%		409 90% 100% 38		
Total Q2 Q2 One Bedroo unit with Stur Two Bedroo unit with Stur Three Bedroo Unit with Stur Answer Choices One Bedroom un Two Bedroom un Two Bedroom	Size ur my my my 0% 10%	An	uld yo	d in this ou be int 7 Skipped: 2	<b>projec</b> ereste 2 2 80% Rei 9.8 18. 46.	70% sponses 12% .35%		409 90% 100% 38 71		
Total Q2 Q2 One Bedroo unit with Stud Two Bedroo unit with Stud Three Bedroo unit with Stud Answer Choices One Bedroom un Two	Size ur my my my my my my my my my my	An	uld yo	d in this ou be int 7 Skipped: 2	<b>projec</b> ereste 2 2 60% Re: 9.8 18. 46. 14.	70% sponses 2% 35%		409 90% 100% 38 71 180		



#### How much would you expect to pay for a TwoBedroom unit?

Answered: 329 Skipped: 80

Responses	
73.25%	241
24.32%	80
2.43%	8
	329
	73.25% 24.32%

Q5

# How much would you expect to pay for a TwoBedroom unit with study?

\$650,000 -\$700,000

\$700,001 -\$750,000

×		
Answer Choices	Responses	
\$850,000 - \$700,000	37.21%	128
\$700,001 - \$750,000	35.76%	123
\$750,001 - \$800,000	19.48%	67
\$800,001 - \$850,000	7.56%	26
Total		344

## How much would you expect to pay for a Three Bedroom unit?



\$800,001 - \$850,000	58.18%	185
\$850,001 - \$900,000	27.04%	86
\$900,001 - \$1,000,000	11.64%	37
\$1,000,001 plus	3.14%	10
Total		318

Q7

## How much would you expect to pay for a Three Bedroom unit with study?

Answered: 315 Skipped: 94

\$800,001 -\$850,000

\$850,001 -\$900,000

8- E-		
1. C		
And and a second se		
Answer Choices	Responses	
	Responses <b>35.87%</b>	113
Answer Choices 1800,001 - \$850,000 1850,001 - \$900,000		113 97
800,001 - \$850,000	35.87%	
1800,001 - \$850,000 1850,001 - \$900,000	35.87% 30.79%	97

# What kind of finishes would you expect for this project?



375

Q9

Total









Answer Choices	Responses	
Library	45.29%	173
Craft & Hobby rooms	44.24%	169
Snooker Room	21.99%	84
TV Rooms / Lounge Rooms	40.31%	154
Bar & Coffee Lounge	61.52%	235
Meeting Rooms	38.74%	148
WiFi and Broadband access.	91.36%	349
Landscaped Gardens	86.13%	329
Outdoor Entertaining Areas with BBQ	77.49%	296
Hydro Pool	54.19%	207
Gym Facilities / Wellness Centre	57,59%	220
Solar Energy	63.35%	242
Gas Appliances	63.09%	241
Total Respondents: 382		

Q11



Answer Choices	Responses	
in the next 5 years	45.77%	173
5 to 7 years	24.34%	92
7 to 10 years	17.20%	65
10 years or more	12.70%	4B
Total		378

#### If you wish to be placed on an Expressions of Interest list for information as this project progresses, please insert your contact details below.

Answered: 210 Skipped: 199

Answer Choices		Responses	
Name	Responses	99.05%	208
Company	Responses	0.00%	Ψ.
Address	Responses	93.81%	197
Address 2	Responses	16.19%	34
City/Town	Responses	89.52%	188
State/Province	Responses	93.81%	197
ZIP/Postal Code	Responses	94.76%	199
Country	Responses	0.00%	10
Email Address	Responses	97.14%	204
Phone Number	Responses	87.14%	183

Q13

#### Sex

Answered: 382 Skipped: 27

Male

Female





Q15

75 or older

Total

### Which of the following categories best describes your employment status?

16.67%

64

384



### Over 55's Retirement Living - Responses | SurveyMonkey

Answer Chaices	Responses	
Employed, working full-time	19.79%	76
Employed, working part-time	16.41%	63
Not employed, looking for work	1.30%	5
Not employed, NOT looking for work	3.39%	13
Rétired	58.07%	223
Disabled, not able to work	1.04%	4
Tota!		384

Q16

## Which of the following best describes your current relationship status?



Answer Choices	Responses		
Married	71.43%	270	
Widowed	6.35%	24	
Divorced	11.38%	43	
Separated	2.12%	8	
in a domestic partnership or civil union	4.50%	17	
Single, but cohabiting with a significant other	1,85%	7	
Single, never married	2.38%	9	
Total		378	

Q17

#### Do you have any other comment?

#### Answered: 95 Skipped: 314

Ideally with a lift 8/30/2016 10:03 AM		^
Price seems a bit inflated for area. 8/28/2016 11:36 AM		
no 8/23/2016 9:46 PM		
Hope this goes ahead. it's a great idea. 8/15/2016 4:59 PM		
Great position as close to station and other amenities B/14/2016 1:45 PM		
Lower price as u can 8/12/2016 6:56 PM		
Is this definitely going ahead and if so what time fram managed by the RSL Club?	e do you envisage? Will it be Strata and will it be	×