

**PROPOSED MIXED USE DEVELOPMENT**

**21 WHISTLER STREET, MANLY**

***Preliminary Assessment of Traffic and  
Parking Implications***

June 2019  
(Rev I)

Reference 110/2018

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# 1. INTRODUCTION

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This report has been prepared for the Pre-DA process with Northern Beaches Council for a proposed residential apartment development at 21 Whistler Street, Manly (Figure 1).

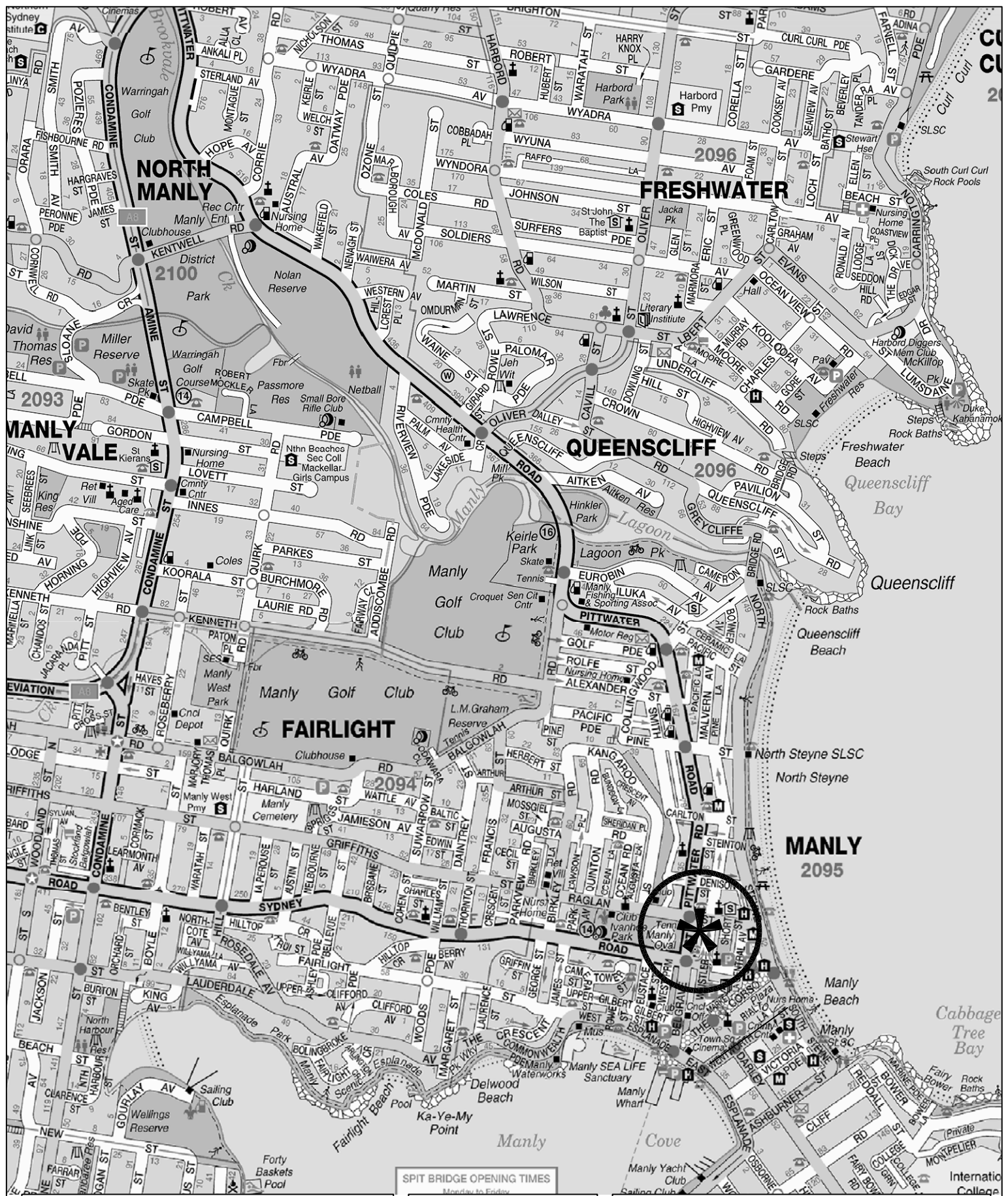
Manly is a very popular and scenic location which benefits from good public transport services and a vibrant commercial centre. The high demand for new residential apartments in the area has resulted in an ongoing process of underutilised sites.

The proposed development scheme comprises:

- 8 apartments
- 2 retail tenancies
- basement carparking with car lift access

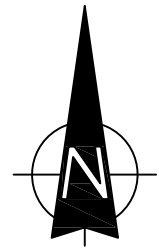
The purpose of this report is to:

- \* describe the site, its context and proposed development scheme
- \* describe the existing road network and conditions on that network
- \* assess the adequacy of the proposed on-site parking provision
- \* assess the proposed vehicle access and the potential traffic implications
- \* assess the proposed internal circulation and servicing arrangements



SPIT BRIDGE OPENING TIMES  
Monday to Friday

## LEGEND



## LOCATION

FIG 1



## **2. PROPOSED DEVELOPMENT SCHEME**

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### **2.1 SITE, CONTEXT AND EXISTING CIRCUMSTANCES**

The site (Figure 2) is Lot B in DP 368451 which occupies square shaped area of some 277m<sup>2</sup>. The site has a frontage of some 17.75m to the eastern side of Whistler Street located within the Manly Commercial Centre. The surrounding uses comprise:

- \* the small retail buildings which adjoin to the north and south
- \* the commercial buildings and multi-level public car park on the eastern side of Whistler Street
- \* the mixed retail and commercial uses which extend along Belgrave Street
- \* the main commercial 'strip' along The Corso to the south
- \* the Ferry Wharf and Bus Interchange located to the south

There is an existing older style 1 & 2 level building on the site.

### **2.2 PROPOSED DEVELOPMENT**

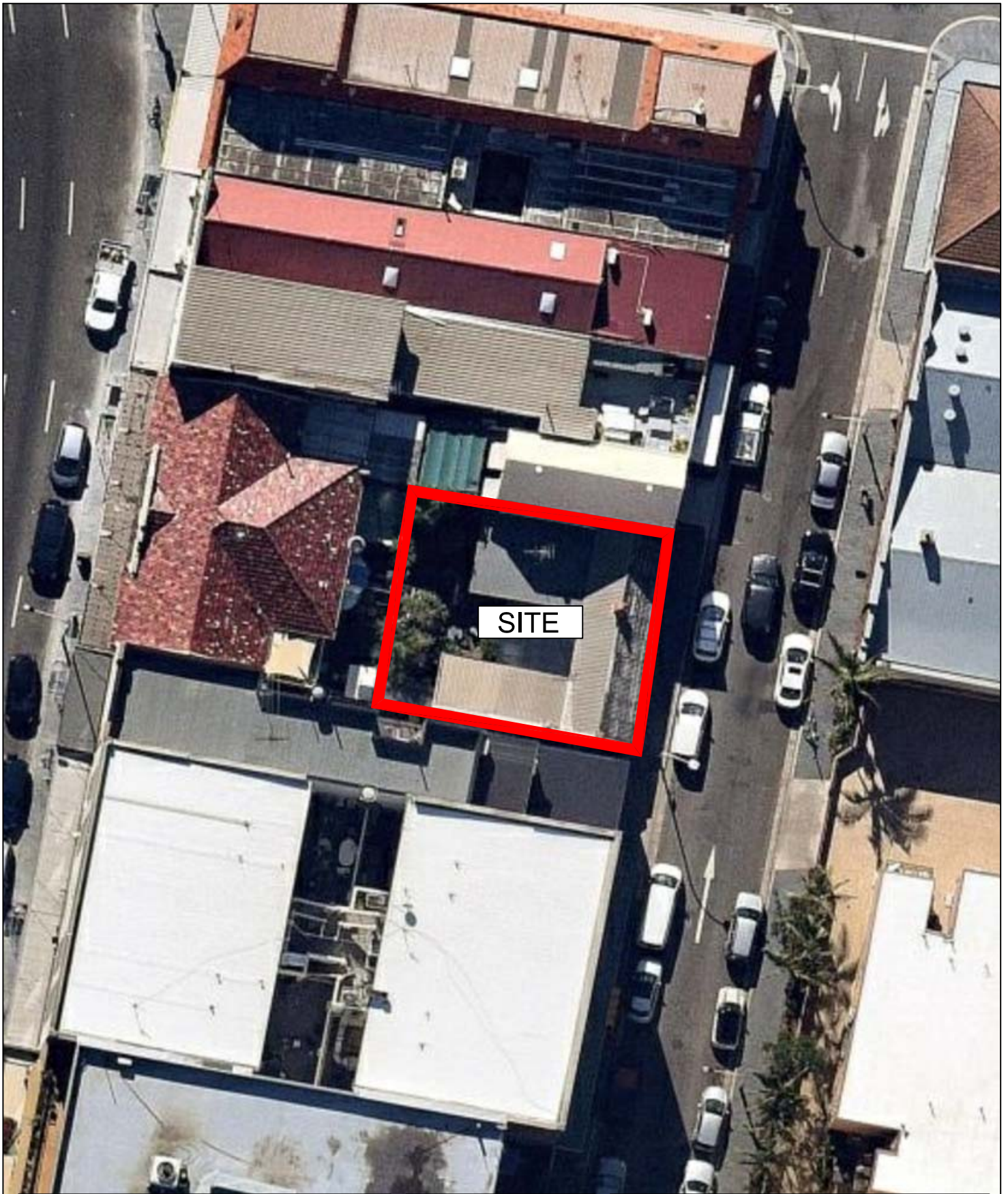
It is proposed to demolish the existing buildings and excavate the site to provide for basement parking and a level building platform. New 5-level building will be constructed comprising:

8 x Two-Bedroom Apartments

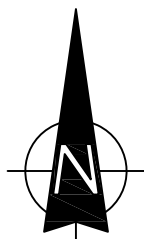
2 x Ground level retail units (181m<sup>2</sup>)

A total of 13 parking spaces will be provided in the basement level with access by car lift and a new driveway on the Whistler Street frontage.

Details of the proposed development are provided on the architectural drawings prepared by Wolski Coppin Architecture which accompany the Development Application and are reproduced in parts in Appendix A.



**LEGEND**



**SITE**

**FIG 2**

### 3. ROAD NETWORK AND TRAFFIC CONDITIONS

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#### 3.1 ROAD NETWORK

The road network serving the site (Figure 3) comprises:

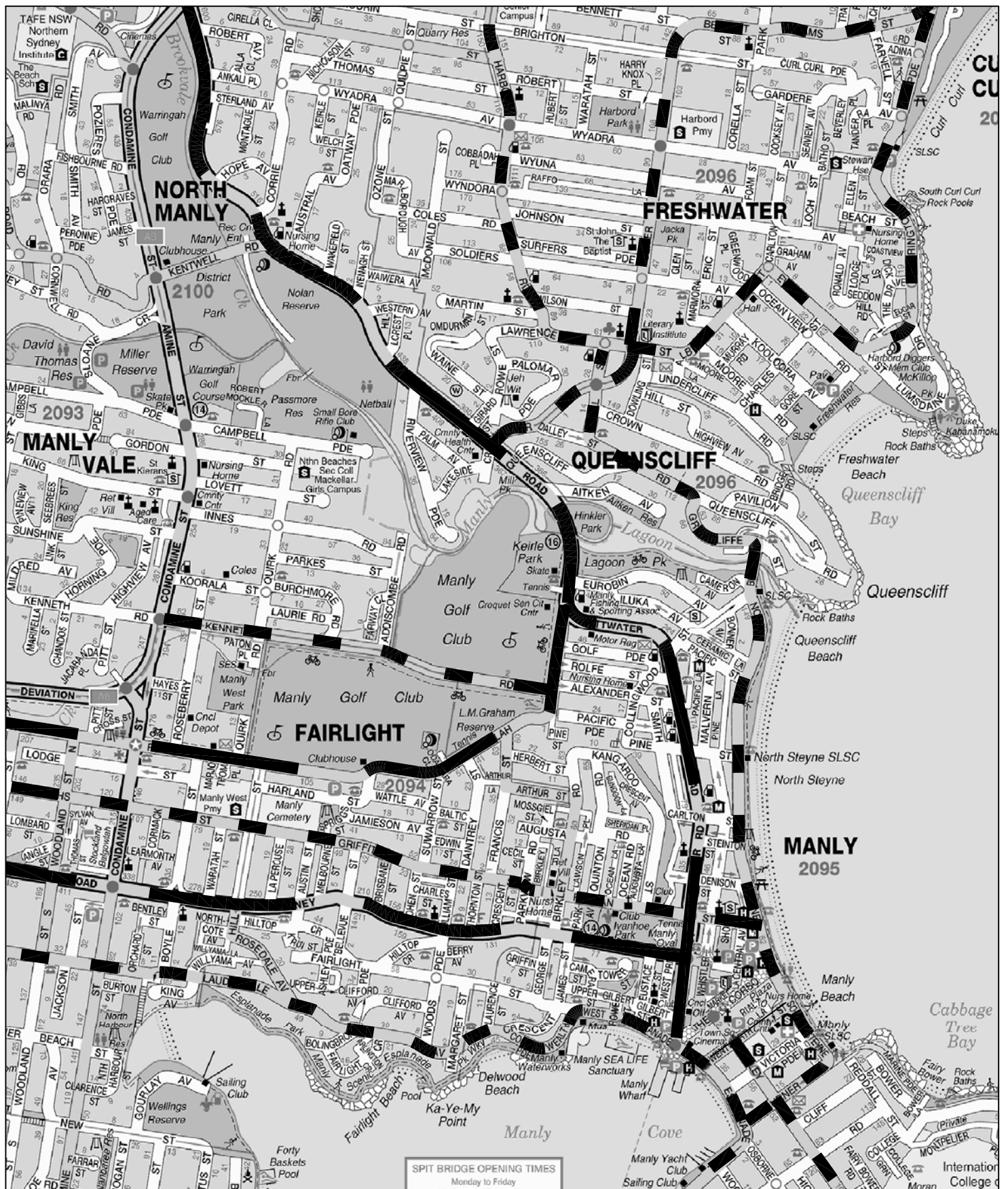
- \* *Pittwater Road / Belgrave Street* – a State Road and arterial route linking between Manly and Mona Vale
- \* *Sydney Road* – a State Road and sub-arterial road route linking between Manly and Balgowlah (local road east of Belgrave Street)
- \* *North Steyne / South Steyne* – a Regional Road and part of a collector route connecting between Manly and Queenscliffe
- \* *Whistler Street* – a local access road

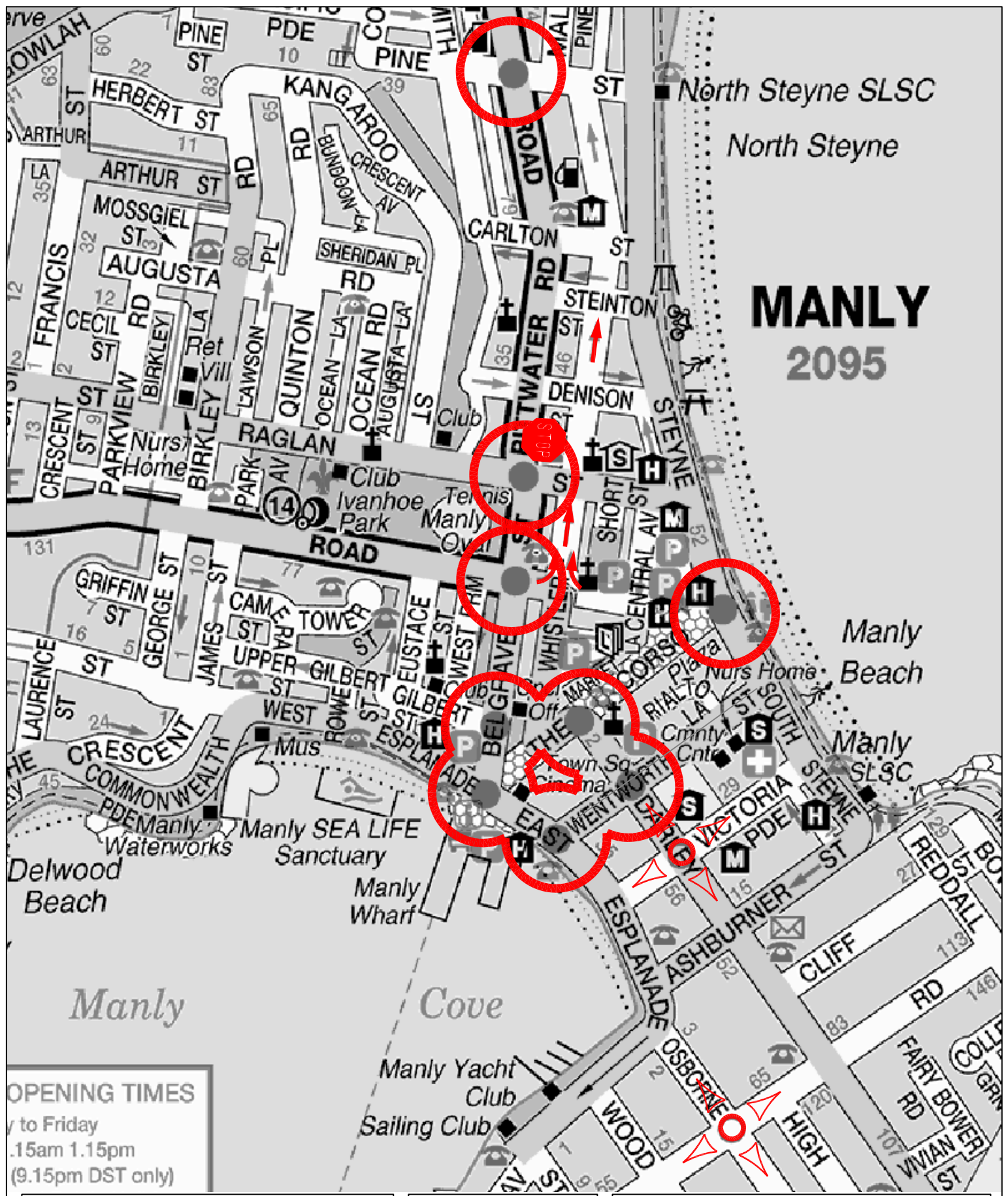
#### 3.2 TRAFFIC CONTROLS

The existing traffic controls, which have been applied to the road system serving the site, (Figure 4) comprise:




- \* the traffic signals on Belgrave Street/Pittwater Road at the:
  - Raglan Street intersection
  - Sydney Road intersection
  - Gilbert Street intersection
  - East Esplanade intersection
- \* the ONE WAY northerly traffic flow on Whistler Street
- \* the 1P restrictions along Whistler Street in the vicinity of the site

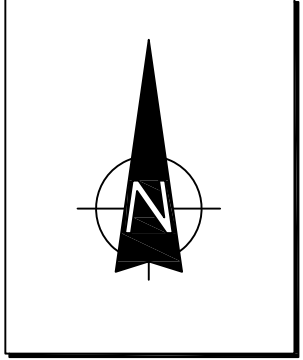






**LEGEND**

-  TRAFFIC SIGNAL CONTROL
-  ROUNDABOUT
-  RESTRICTED TURNING MOVEMENT



**TRAFFIC CONTROLS**

**FIG 4**

### 3.3 TRAFFIC CONDITIONS

An indication of the traffic conditions on the road system serving the site is provided by the data published by RMS. The data is expressed in terms of Annual Average Daily Traffic (AADT) and the most recent recorded volumes are provided in the following:

<b>Location</b>	<b>AADT</b>
Pittwater Road (W of Raglan St)	15,371
Sydney Road (W of Pittwater Rd)	16,523

The traffic movements along Whistler Street adjacent to the site are only some 150 vph during the AM and PM peak periods.

Traffic conditions in the vicinity of the site are generally satisfactory with a high level of control provided by the numerous traffic signals which provide for vehicle access and pedestrian crossing movements.

### 3.4 TRANSPORT SERVICES

There are convenient public transport services in the vicinity of the site including bus and ferry services (Appendix B details). These frequent high capacity services provide connections to the City, the rail network, other bus services and the surrounding residential areas. It is apparent that the site is conveniently located to take advantage of those frequent high capacity transport services.

## **4. ACCESS, WAITING AREA AND TRAFFIC**

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### **ACCESS**

Vehicle access to / from the basement will involve a car lift which will be programmed to automatically “revert” to and “wait” at the ground level to facilitate ingress car access. If a car approaches to enter while an egress movement is occurring (a small LED warning sign will be displayed externally), the entering car will be able to wait in the designated waiting bay located behind the car lift while the egressing car travels to the ground level. Details of this arrangement are elaborated further in the following section.

### **WAITING AREA**

A vehicle waiting bay is provided behind the car lift to accommodate an ingress vehicle while the lift transports an egress vehicle from the basement. In a detailed step-by-step manner it is advised by lift manufacturer ‘safe tech’ that the system will be set up to operate as follows:

1. By default, the car lift dwells on the ground level to receive ingress vehicles.
2. When called by a resident in the basement, the car lift travels down, thus leaving an opening allowing any ingress vehicle to access the car lift’s waiting area via the roof of the lift during this time.
3. Once the lift detects no vehicle activity on the ground level (i.e. vehicle above the lift accessing the waiting bay) it shuts the lift door and transport the egress vehicle to the ground level.
4. When arrived at the ground level the street-fronting lift door will be opened.
5. The egress vehicle will exit onto the street.
6. The waiting bay lift door will now be opened while the street-fronting door shuts concurrently
7. The ingress vehicle will reverse into the lift to be transported down to the basement.

While the above arrangement accommodates opposing traffic flows appropriately, it is nevertheless noted that the parking spaces are of residential nature only. There will be minimal opposing traffic flows during the peak periods and as such it is not anticipated that the lift operation would be impeded on the Whistler Street traffic flow.

## **TRAFFIC**

RMS have released updated traffic generation data for high density apartments however, this is for sites in convenient proximity to railway stations.

Having regard for the earlier RMS criteria for “high density” residential developments, the following assessment is made:

Proposed 8 apartments @ 0.29 vtp/h      2 – 3 vtp/h

Thus, the projected peak traffic generation is only some 2-3 vtp/h and the potential impact of this on the access driveway and the surrounding road system will be entirely imperceptible.



## 5. PARKING

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Council's DCP specifies a parking provision in relation to the proposed development as follows:

### **Residential**

0.6 resident space per studio/ 1 bed; plus  
 1 resident space per 2 bed apartment; plus  
 2 resident spaces per 2 bed apartment; plus  
 0.16 visitor parking space for each dwelling

**Retail**      1 space per 40m<sup>2</sup> GFA

Application of these criteria to the proposed development would indicate the following:

8 x Two-bedroom apartments	8 spaces
Visitors (8 apartments)	1.3(2) spaces
Retail	3 spaces <sup>1</sup>
<b>Total:</b>	<b>13 spaces</b>

<sup>1</sup> The total retail parking requirement of 5 spaces will be offset by a S94 Contribution of 2 spaces resulting in a requirement of 3 retail spaces.

The development proposes 13 spaces in strict accordance with the above control, including 2 accessible spaces in the basement along with provision for bicycles in the resident stores which comply with Class 1 locker dimensions. The primary parking system is entirely independent and accommodates 11 spaces. It operates with a 'puzzle-like' arrangement, allowing vehicles to be moved vertically and horizontally within the system to 'receive' or 'present' vehicles to users. The remaining 2 spaces are provided in the form of conventional 2-level stackers.

It is apparent that the proposed parking provision will satisfy the demands of the proposed development and will not result in any on-street overflow.

## **6. INTERNAL CIRCULATION AND SERVICING**

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### **INTERNAL CIRCULATION**

Provisions made for aisles and circulation area within the carpark will be generally consistent with the requirements of AS2890.1. The arrangement, which includes an appropriately located turntable, reflect the site constraints. However, it is demonstrated that there will be quite adequate provision for manoeuvring as indicated on the turning path assessment in Appendix C.

### **SERVICING**

Refuse will be removed from the street by Council services while any small service vehicles (e.g. service personnel) will be able to park in the adjacent public car park. Any occasional delivery vehicle requirements will be satisfied by the available on-street parking as is normal for small developments of this nature. In particular, it is noted that there are 2 sign-posted "Loading Bays" some 20m south of the site at Whistler Street.

## 7. COUNCIL'S RAISED ISSUES

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Council in its assessment raised the following access and circulation issues which are subsequently responded to in the following:

### 6. Car Parking System

Under constrained circumstance, whether it is a conventional stacker system or an integrated system, such as that proposed here, would make no difference in terms of waiting times. The perceived added benefit of a conventional stacker, in Council's description, is only realised if residents of different car stackers could concurrently park/unpark their vehicles in the carpark. However, the constraints presented in this carpark would naturally preclude that from occurring, that is, no 2 vehicles can park/unpark their cars concurrently in a convenient/safe manner if their spaces are independent of each other, quite apparently due to the limited available manoeuvring area. In fact, if residents attempt to 'squeeze' their way in while their neighbour is parking/unparking their car, the resulting outcome could be a safety hazard. In my assessment of the appropriateness of this proposed arrangement, I take into consideration (1) the traffic generation, which is very low in this context, (2) the likelihood of conflicting traffic flow, which is also low given its residential nature, (3) the site circumstances, which is constrained in this context. On balance, it is my view that the proposed arrangement would operate in a reasonably safe manner that is unlikely to result in undesirable crash/incident amongst users. On the street level, I am also of the view that because there will be minimal conflicting movement, coupled with the one-way north only traffic restriction on Whistler Street, that any traffic implications to Whistler Street as a result of this lift operation will not be undue.

### 7. Loading Facilities

The site is constrained and the retail component comprises only 2 small units of some 180m<sup>2</sup> GFA. It is not pragmatic to provide dedicated loading facility for retail units of this scale and nature. The need for loading access can be readily satisfied by the 2 signposted Loading Zone spaces some 20m south of the site at Whistler Street.

**8. Passing/Waiting Bay**

A waiting vehicle will not impede the traffic flow at Whistler Street because it will be waiting/stopping momentarily on the kerbside lane, not the traffic lane.

**9. Sight Lines**

To overcome concerns relating to sight lines, convex mirrors could be installed on the northern and southern corners of the lift to enable pedestrian sight lines. Further, if necessary, low-profile flashing LED lights could be provided on the lift doors to heighten pedestrian awareness as the lift door opens.

## 8. CONCLUSION

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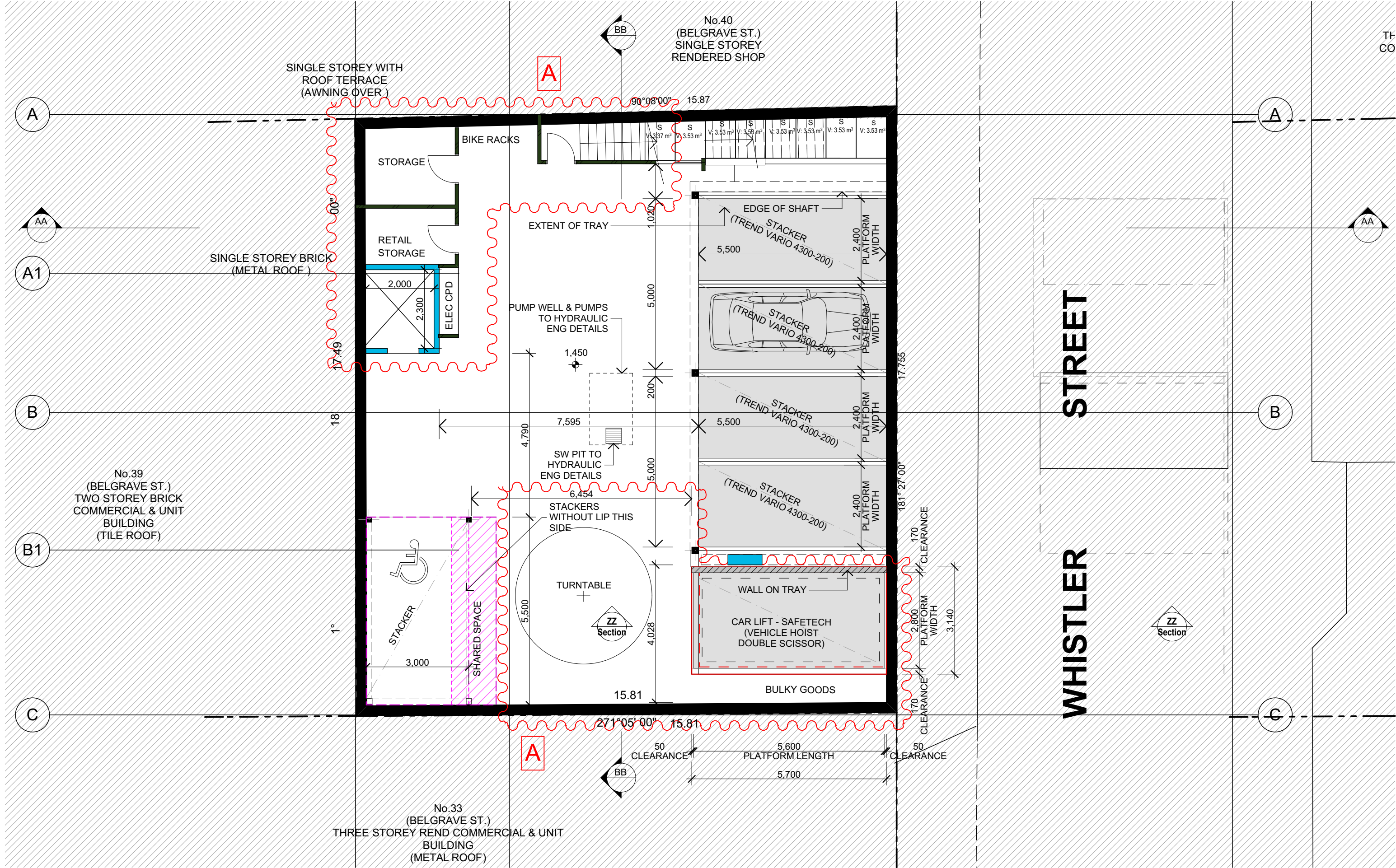
Assessment of the proposed mixed use development at Manly has concluded that:

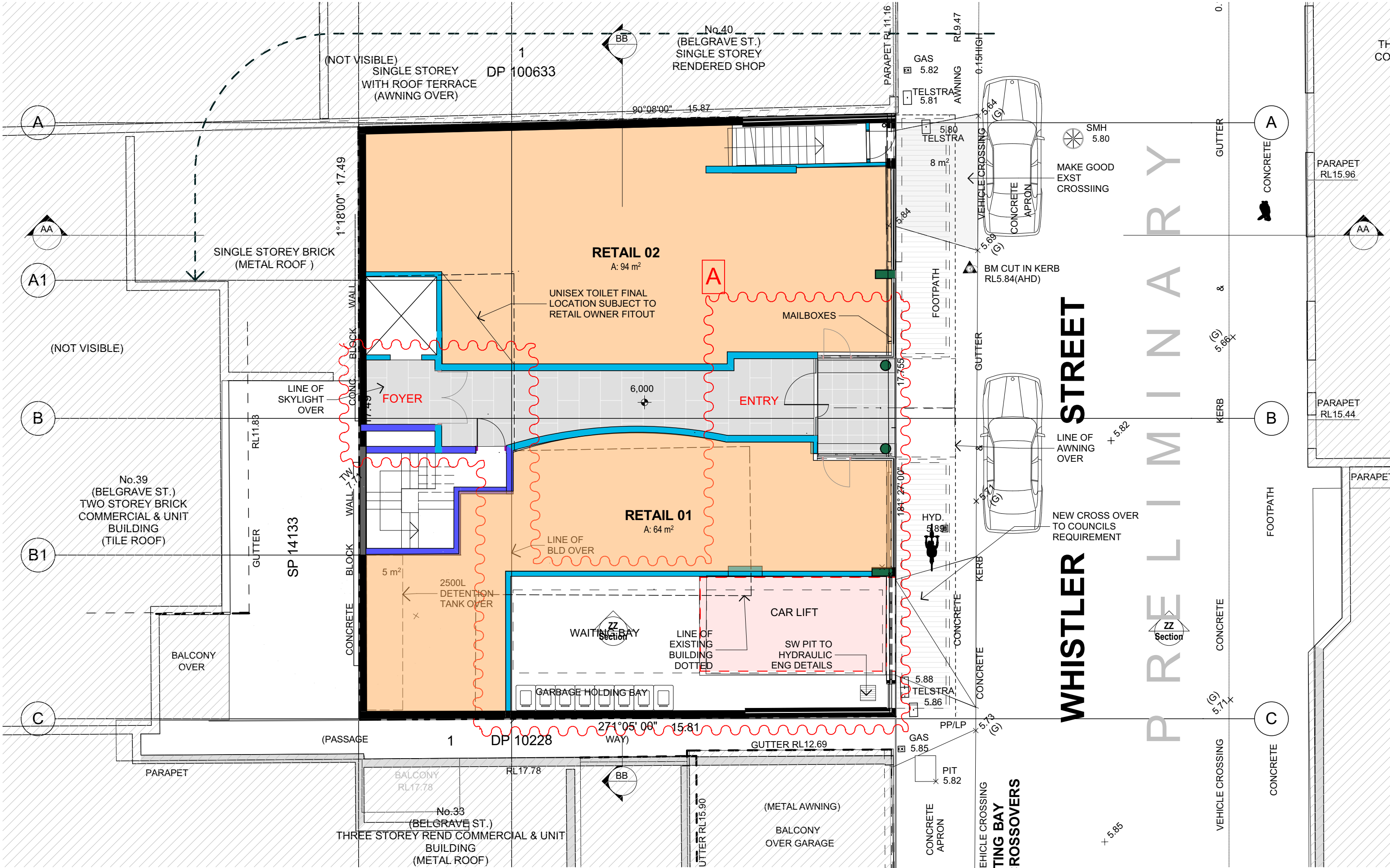
- \* there will not be any adverse traffic / safety implications
- \* the proposed parking provision will be adequate and compliant with Council's code
- \* the waiting bay provided with the car lift satisfactorily accommodate the need of a waiting vehicle such that reliance on Whistler Street is not necessary
- \* the proposed vehicle access, internal circulation and servicing arrangements will be suitable and appropriate

# APPENDIX A

## DEVELOPMENT PLANS

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NOTES:

FIGURED DIMENSIONS ARE TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

THE CONTRACTOR IS TO CHECK AND VERIFY FIGURED DIMENSIONS PRIOR TO ANY COMMENCEMENT OF WORK ON SITE.

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REVISIONS:

DATE	REV	DESCRIPTION
25 03 19	A	-RECONFIGURE ENTRY & LIFT FOYER
		-ADDED WAITING BAY
		-NEW LOCATION OF BIN AREA
		-RECONFIGURE RETAIL 01/02

PROJECT TITLE:

**RESIDENTIAL DEVELOPMENT**

21 WHISTLER ST MANLY

CLIENT:

**Urban Partners**

ARCHITECT:

**WOLSKI . COPPIN ARCHITECTURE**

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DAVID WOLSKI NSW ARB No. 5297

DRAWING TITLE:

**GROUND**

DRAWING No:

**DA02**

PROJECT No:

21806

REVISION:

**A**

NORTH POINT:

SCALE:

1:100 @ A3

DATE:

28/05/2019





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DATE	REV	DESCRIPTION

PROJECT TITLE:  
**RESIDENTIAL DEVELOPMENT**  
21 WHISTLER ST MANLY

CLIENT:  
**Urban Partners**

ARCHITECT:  
**WOLSKI . COPPIN**  
ARCHITECTURE  
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T: 9953 8477 E: info@wolskicoppin.com.au  
DAVID WOLSKI NSW ARB No. 5297

DRAWING TITLE:  
**3d - Looking from South of Whistler St**

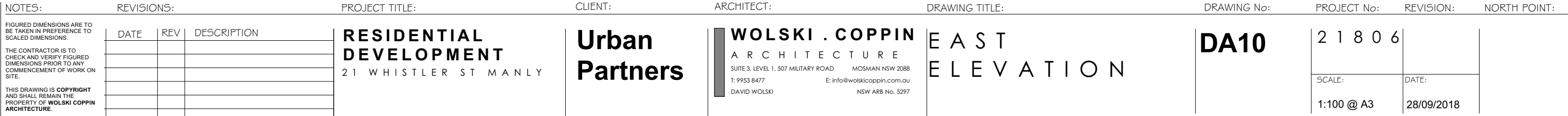
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**3D01**

PROJECT No:  
**21806**

REVISION:  

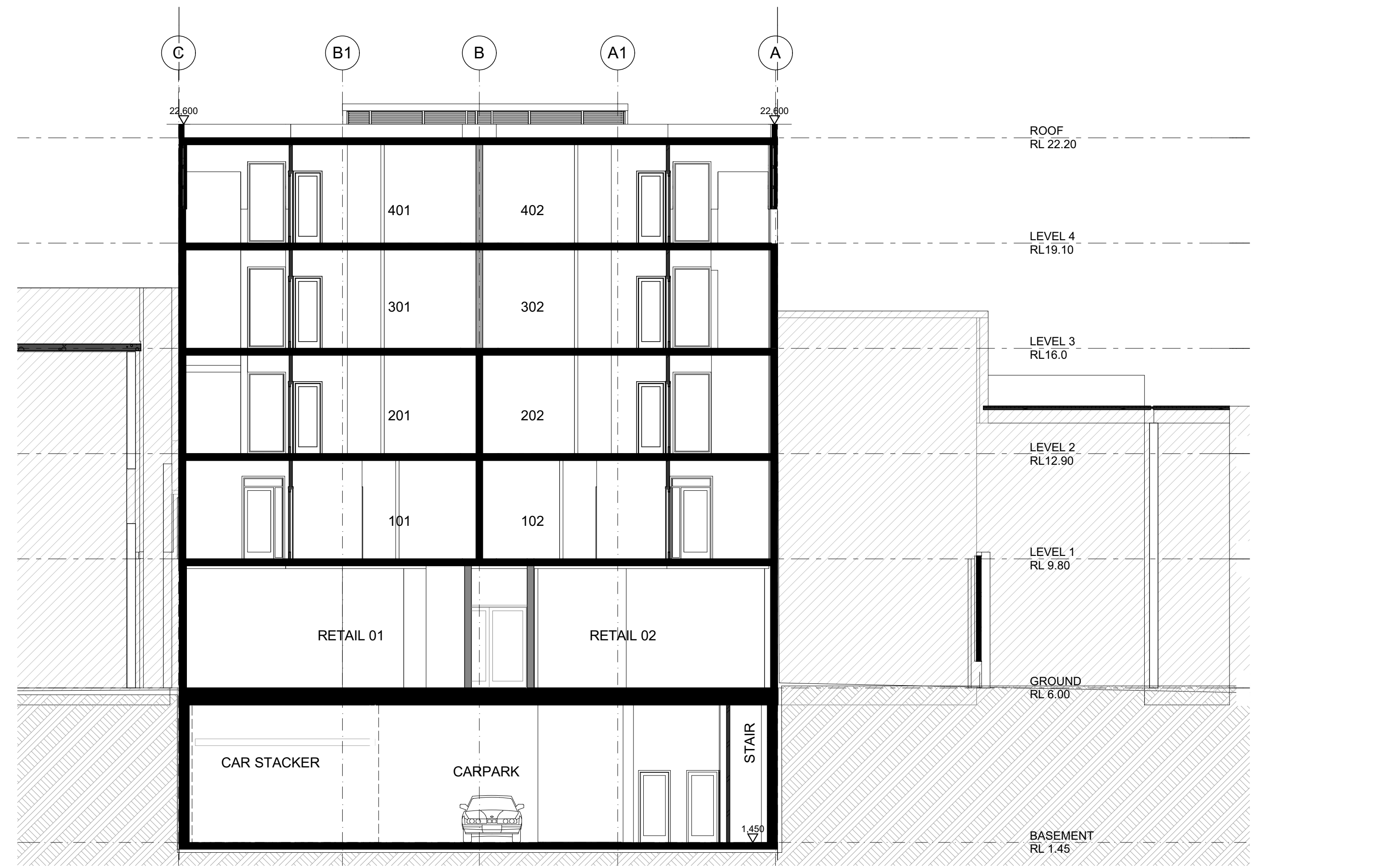
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NOTES:

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21 WHISTLER ST MANLY

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DRAWING TITLE:

SECTION B B

DRAWING No:

DA09

PROJECT No:

2 1 8 0 6

REVISION:

SCALE: 1:100 @ A3

NORTH POINT:

DATE: 28/09/2018

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RESIDENTIAL DEVELOPMENT

21 WHISTLER ST MANLY

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DAVID WOLSKI NSW ARB No. 5297

SECTION B B

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SCALE: 1:100 @ A3	DATE: 28/09/2018



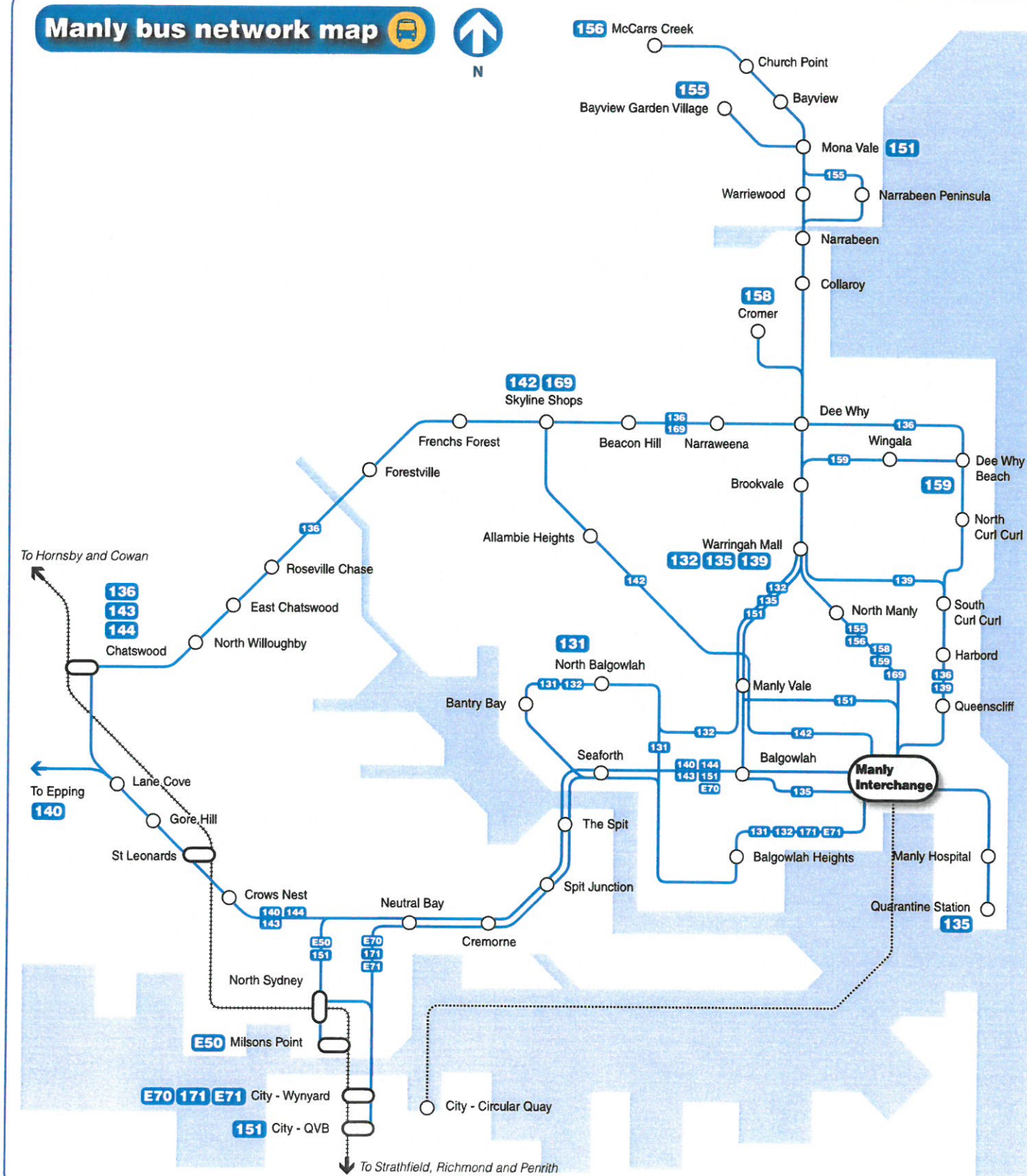
## **APPENDIX B**

### **TRANSPORT SERVICES**

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N



### Legend

- Sydney Buses routes  
 ..... Ferry  
 Diagrammatic Map - Not to Scale
- +++++ Rail line  
 ■ Railway station  
 ○ Bus route/suburb  
 ⊞ Bus/Rail interchange





# Legend

-  Bus stand
-  Parking
-  Kiss and ride
-  Ferry wharf
-  Walking route
-  Bus zone
-  Taxi rank



# Bus services at Manly


## Bus departure information

Please use this listing to find your bus number, route destination and bus stand.  
Refer to the Interchange Map to find the bus stand location.



Bus Stand	Route Number	Bus Route Destination
<b>A</b>	<b>135</b>	Warringah Mall via Balgowlah & Manly Vale
<b>A</b>	<b>136</b>	Chatswood via Curl Curl, Narraweena & Frenchs Forest
<b>A</b>	<b>139</b>	Warringah Mall via Harbord & South Curl Curl
<b>B</b>	<b>155</b>	Bayview Garden Village via Dee Why & Mona Vale
<b>B</b>	<b>156</b>	McCarrs Creek via Dee Why & Mona Vale
<b>B</b>	<b>158</b>	Cromer via Dee Why
<b>B</b>	<b>159</b>	Dee Why via Wingala
<b>B</b>	<b>169</b>	Narraweena via Dee Why
<b>C</b>	<b>131</b>	North Balgowlah via Balgowlah Heights
<b>C</b>	<b>132</b>	Warringah Mall via Balgowlah Hts & North Balgowlah
<b>C</b>	<b>171/E71</b>	City - Wynyard via Balgowlah Heights
<b>D</b>	<b>143</b>	Chatswood via Neutral Bay & St Leonards
<b>D</b>	<b>144</b>	Chatswood via Neutral Bay & RNS Hospital
<b>E</b>	<b>140</b>	Epping via Neutral Bay (Limited Stops)
<b>E</b>	<b>142</b>	Skyline Shops via Balgowlah & Allambie Heights
<b>E</b>	<b>E50</b>	Milsons Point (Express)
<b>F</b>	<b>E70</b>	City - Wynyard (Express)
<b>G</b>	<b>151</b>	City - QVB via Neutral Bay & North Sydney
<b>H</b>	<b>151</b>	Mona Vale via Manly Vale & Dee Why
<b>J</b>	<b>135</b>	Quarantine Station via Manly Hospital

### Bus Operator Legend

 Sydney Buses





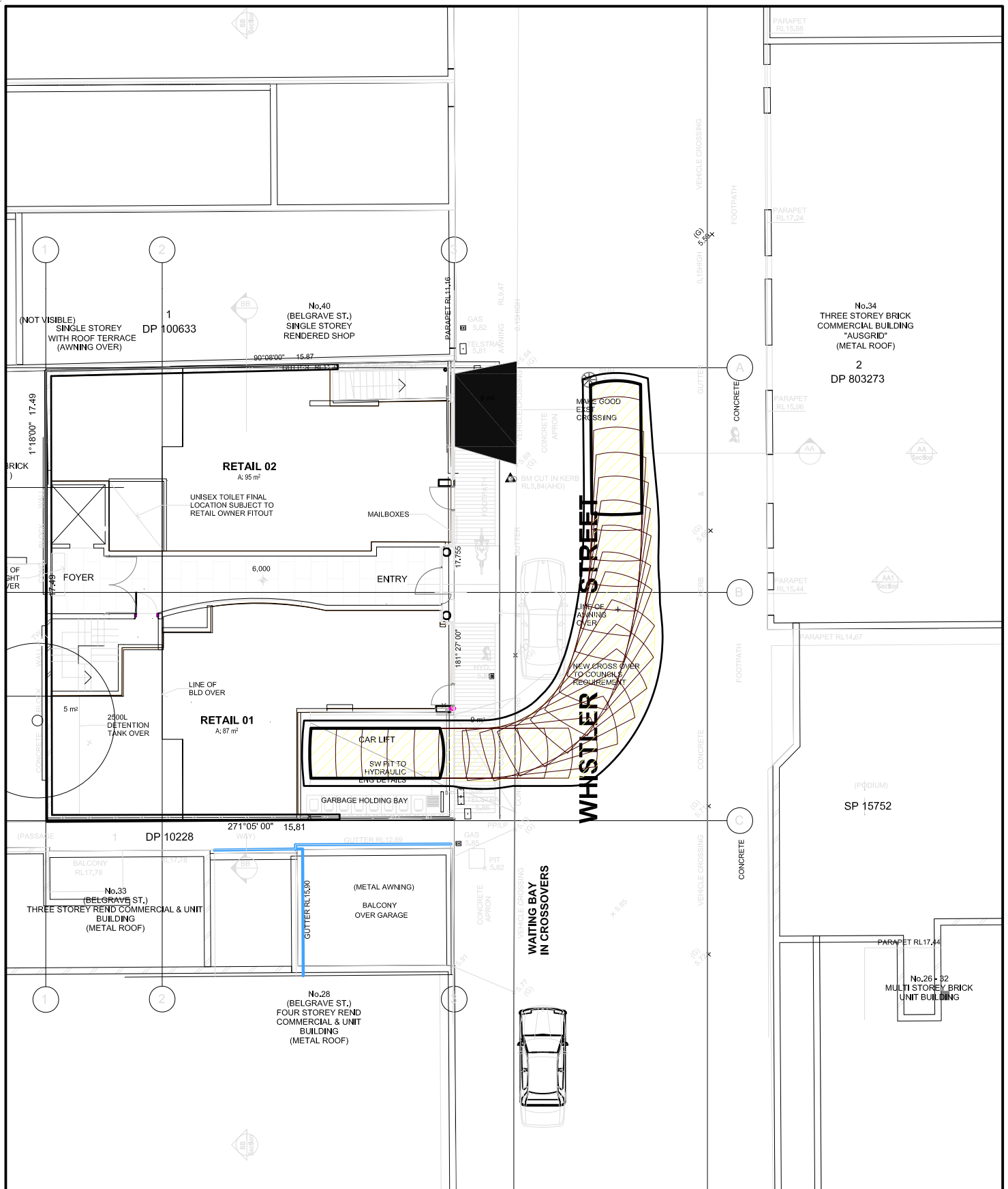


## **APPENDIX C**

### **TURNING PATH ASSESSMENT**

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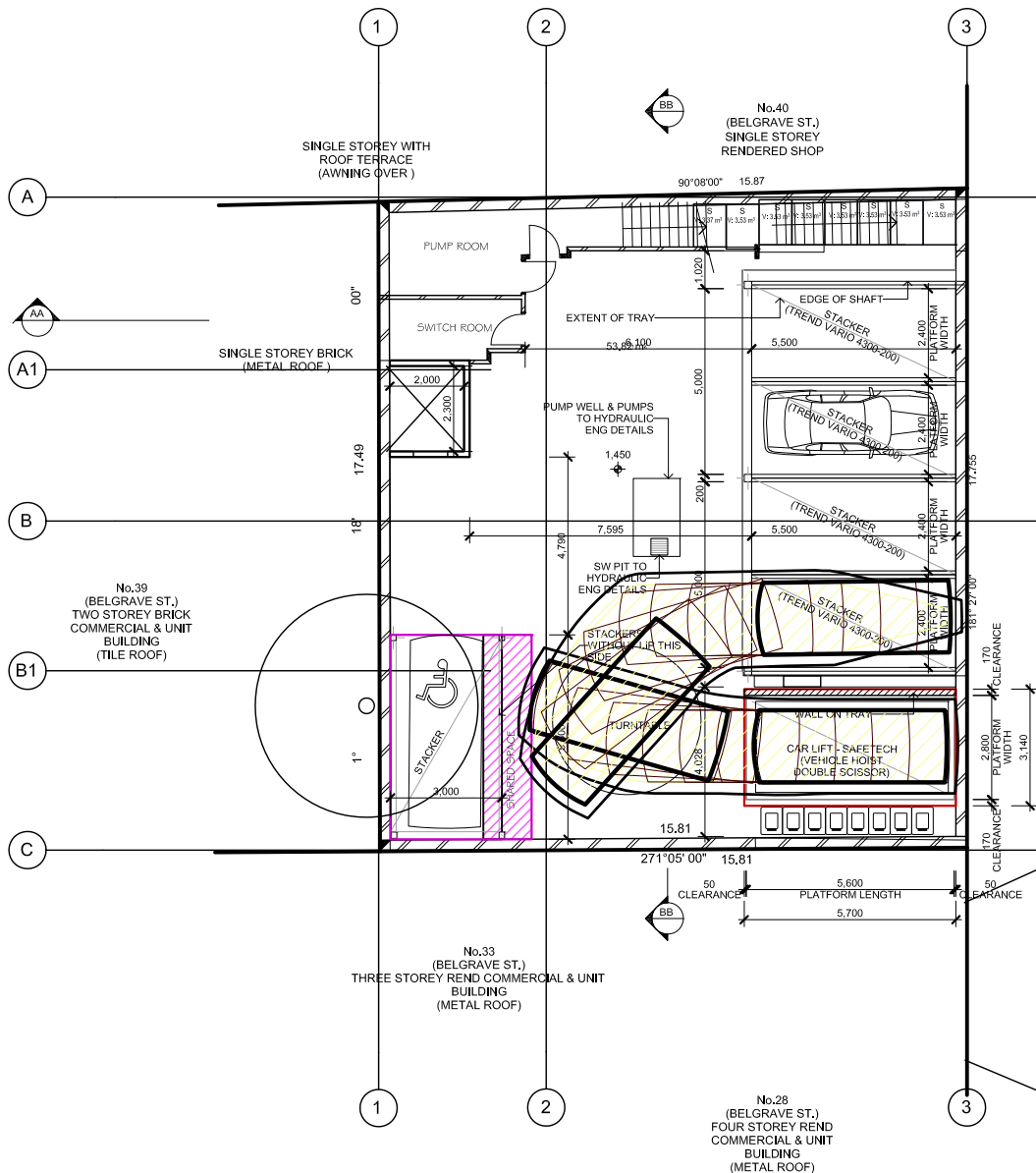
## LEGEND

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.



**SWEPT PATH ANALYSIS  
OF A 99th PERCENTILE  
VEHICLE EXITING THE SITE  
(GROUND FLOOR)**

**SP 2**



## LEGEND

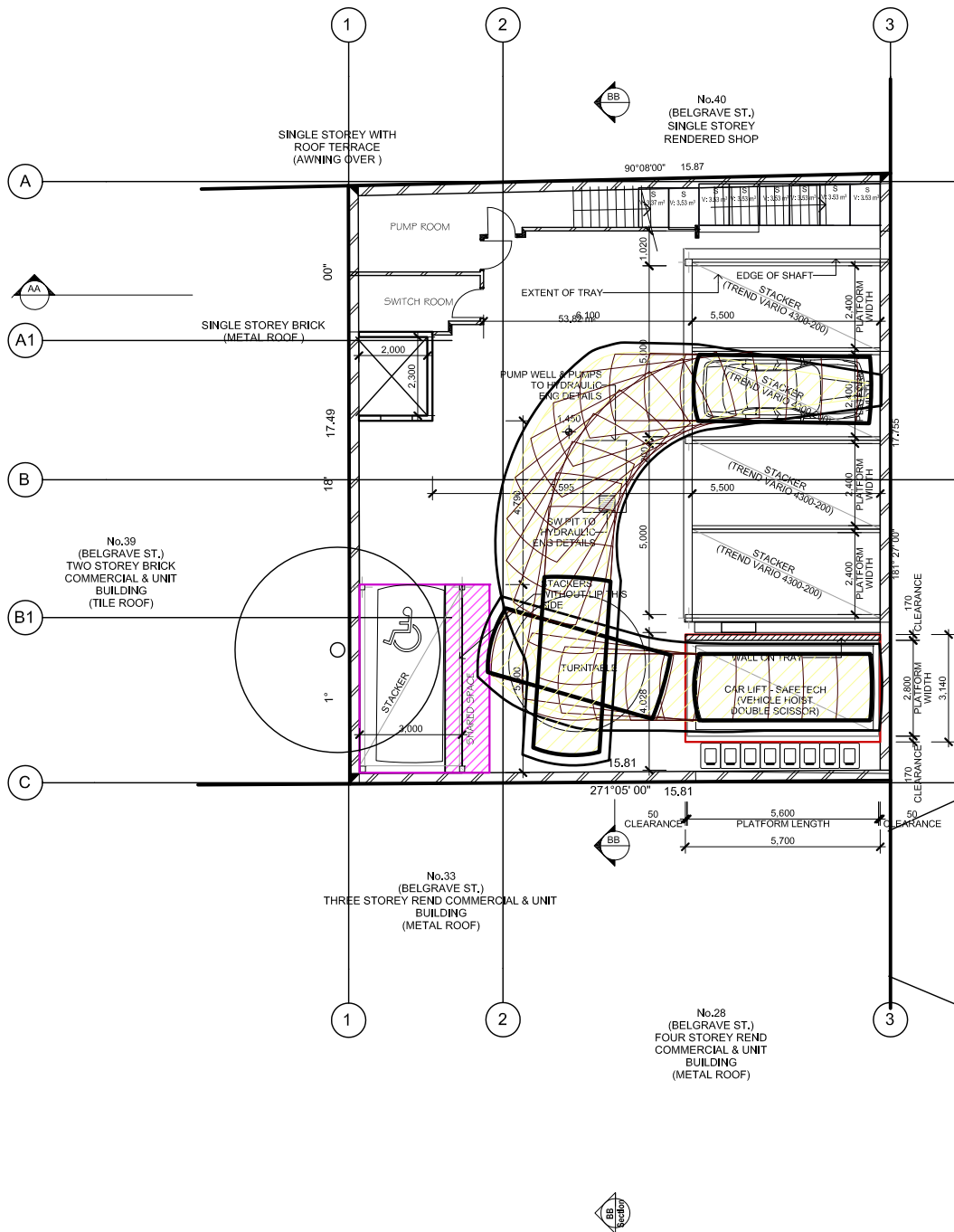
This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.



## SWEPT PATH ANALYSIS OF A 99th PERCENTILE VEHICLE EXITING THE LIFT AND ENTERING STACKER (BASEMENT FLOOR)

SP 3





STREET  
WHISTLER

## LEGEND

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.



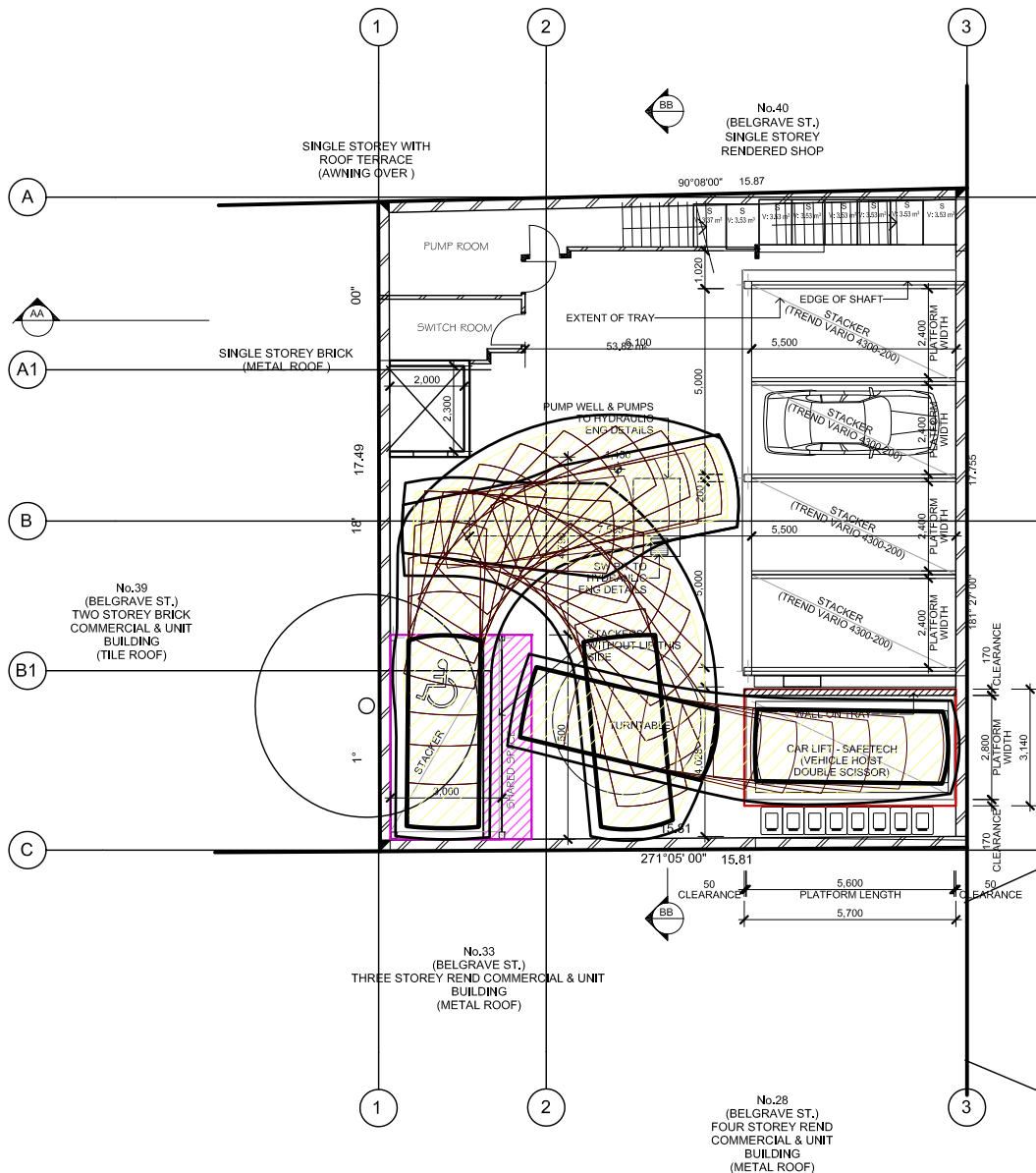
**SWEPT PATH ANALYSIS  
OF A 99th PERCENTILE  
VEHICLE EXITING THE LIFT  
AND ENTERING STACKER  
(BASEMENT FLOOR)**

**SP 5**









STREET  
WHISTLER

## LEGEND

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.



**SWEPT PATH ANALYSIS  
OF A 99th PERCENTILE  
VEHICLE EXITING THE  
STACKER AND ENTERING LIFT  
(BASEMENT FLOOR)**

**SP 8**



