

Proposed Mixed Use Development

**342-350 High Street,  
Penrith**

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**TRAFFIC AND PARKING ASSESSMENT REPORT**

13 October 2021

Ref 20401

**VARGA TRAFFIC PLANNING** Pty Ltd  
**Transport, Traffic and Parking Consultants** 

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## TABLE OF CONTENTS

<b>1. INTRODUCTION .....</b>	<b>1</b>
<b>2. PROPOSED DEVELOPMENT .....</b>	<b>5</b>
<b>3. TRAFFIC ASSESSMENT .....</b>	<b>11</b>
<b>4. PARKING ASSESSMENT .....</b>	<b>21</b>

<b>APPENDIX A</b>	<b>ARCHITECTURAL PLANS</b>
<b>APPENDIX B</b>	<b>SWEPT TURNING PATHS</b>

## LIST OF ILLUSTRATIONS

<b>Figure 1</b>	Location
<b>Figure 2</b>	Site
<b>Figure 3</b>	Road Hierarchy
<b>Figure 4</b>	Existing Traffic Controls
<b>Figure 5</b>	Existing Public Transport
<b>Figure 6</b>	Existing Parking Restrictions

## 1. INTRODUCTION

This report has been prepared to accompany a development application to Council for a mixed use development proposal to be located at 342-350 High Street, Penrith (Figures 1 and 2).

Council has previously approved a mixed use residential / commercial development on 342-344 High Street comprising 45 apartments and a number of commercial units with a cumulative floor area of 693m<sup>2</sup>. Off-street parking was approved for 83 car spaces (including a designated car wash bay), in a new multi-level car parking area (DA16/0254).

This application seeks approval to modify the unit mix, commercial area and car parking layout of the previously approved development. It also involves amalgamation of 348-350 High Street with the previously approved development site and seeks approval for the construction of a new mixed use residential / commercial / retail development.

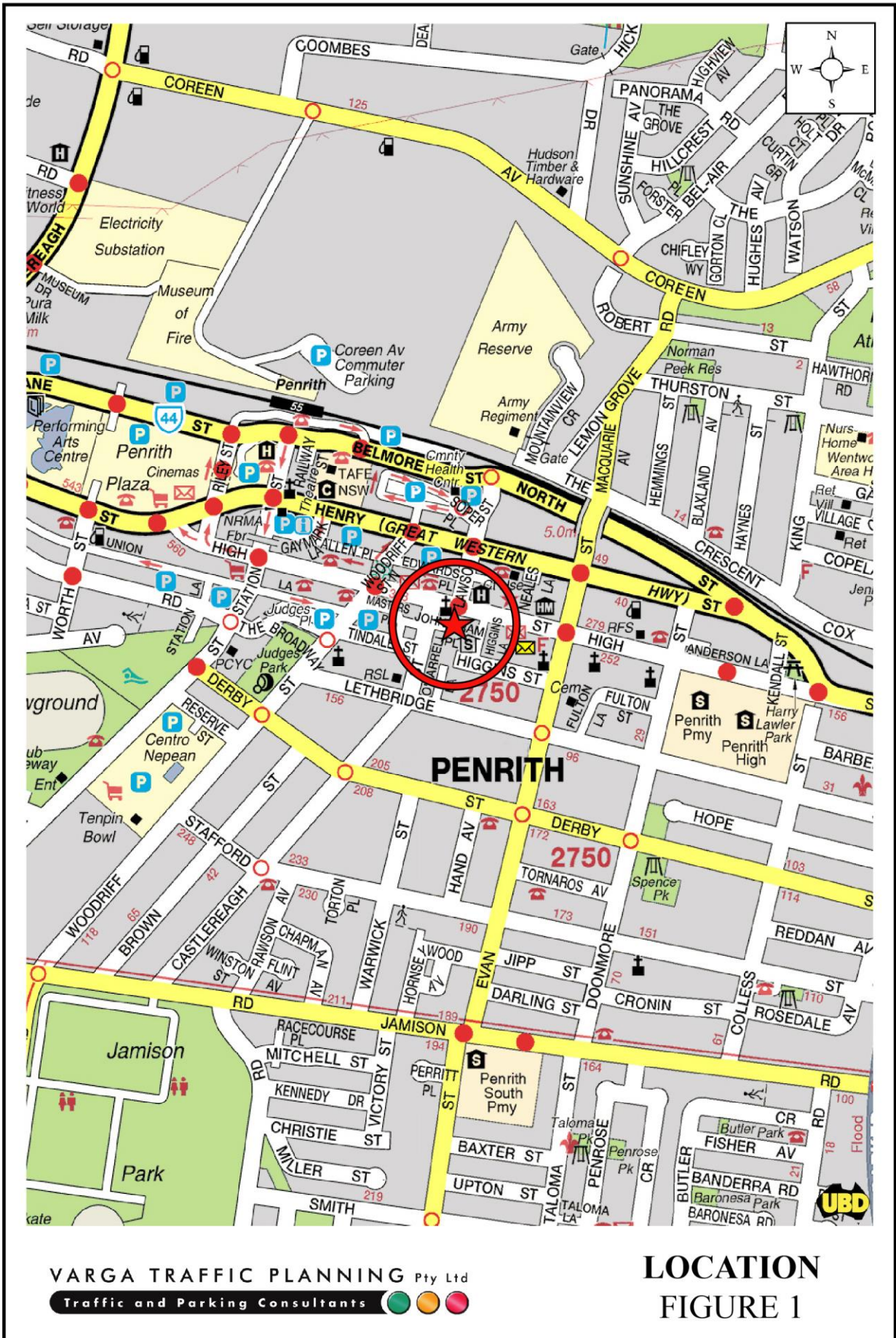
Off-street parking is provided in a new two-level car parking area across two separate car parking areas, in accordance with Council and *SEPP 65* requirements. Vehicular access to the car parking facilities is to be provided off John Cram Place.

It is worth noting that the site is situated within the *Penrith Town Centre* and is readily accessible by public transport, with a wide range of bus and train services being available within the vicinity of the site.

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

- describes the site and provides details of the development proposal
- reviews the road network in the vicinity of the site
- reviews the public transport services in the vicinity of the site

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





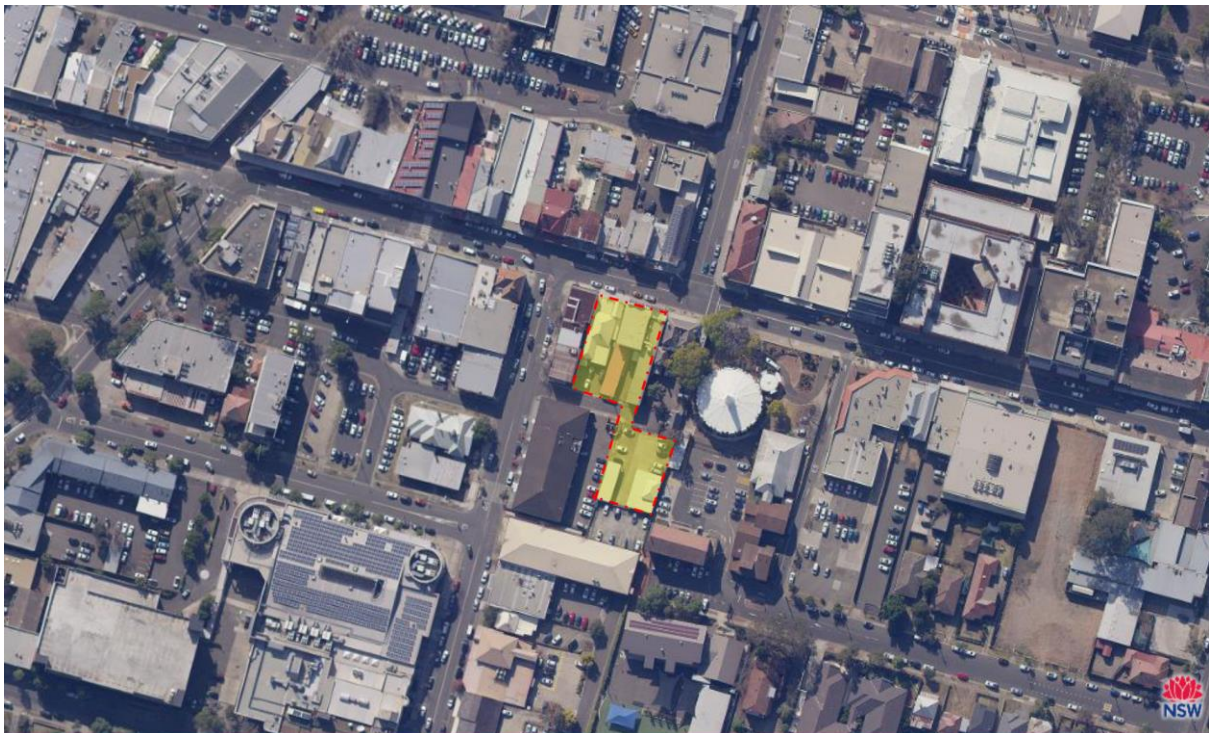
## 2. PROPOSED DEVELOPMENT

### Site

The subject site is located on the along the southern side of High Street, approximately 40m east of Castlereagh Street, with John Cram Place extending through the site and is situated approximately 800m walking distance to/from Penrith railway station. The site has street frontages of approximately 30m in length to High Street, approximately 48m in length to Castlereagh Street and approximately 66m in length to John Cram Place. The site occupies an area of approximately 2,200m<sup>2</sup>. The site also provides an easement in the central section of the site for the benefit of the adjacent site located at 340 High Street, allowing vehicular access to their off-street parking area.

The subject site is currently occupied by a number of commercial buildings with a cumulative floor area estimated to be approximately 1,150m<sup>2</sup>.

A recent aerial image of the site and its surroundings is reproduced below.



Off-street parking is provided at the rear of the site in an at-grade car parking area which includes a number of carport structures. Vehicular access to the rear parking area is provided via John Cram Place.

*Streetview* images of the John Cram Place site frontages are reproduced below.




The site is situated within the *Penrith Town Centre*, as identified in the *Penrith DCP 2014* map reproduced on the following page.



Figure E11.1 Penrith City Centre



 Area covered by Penrith City Centre

### **Previously Approved Development (342-344 High Street)**

Properties 342-344 High Street were previously approved for demolition of the existing commercial buildings on the site to facilitate the construction of a new mixed use residential / commercial development (DA16/0254).

A total of 45 residential apartments were approved in the new building as follows:

1 bedroom apartments:	10
2 bedroom apartments:	33
3 bedroom apartments:	2
<b>TOTAL APARTMENTS:</b>	<b>45</b>

A number of commercial suites were also approved on the ground and first floor levels of the northern building, with a cumulative floor area of approximately 693m<sup>2</sup>.

Off-street parking was approved for a total of 83 cars (including a designated car wash bay). in accordance with Council and *SEPP 65* requirements. Vehicular access to the car parking facilities was approved off John Cram Place.

Garbage collection was also approved to be undertaken by Council's 10.5m long rigid truck in a loading area located on the ground floor level. Vehicular access to the loading area was approved to be provided via the abovementioned access arrangements off John Cram Place.

### **Proposed Development**

This application seeks approval to modify the unit mix, commercial area and car parking layout of the previously approved development. It also involves amalgamation of 348-350 High Street with the previously approved development site, and seeks approval for the demolition of the existing buildings on the site (with an estimated cumulative floor area of 300m<sup>2</sup>) and associated carport structures on the site, to facilitate the construction of a new mixed use residential / commercial / retail development.

A total of 29 residential apartments are proposed in the new development as follows:

	<b>BUILDING A</b>	<b>BUILDING B</b>	<b>TOTAL</b>
1 bedroom apartments:	-	9	<b>9</b>
2 bedroom apartments	-	14	<b>14</b>
3 bedroom apartments	2	3	<b>5</b>
4 bedroom apartments:	1	-	<b>1</b>
<b>TOTAL APARTMENTS:</b>	<b>3</b>	<b>26</b>	<b>29</b>

Commercial office space is also proposed on levels 1 to 4 in Building A, with a cumulative floor area of 2,441m<sup>2</sup>.

A number of retail shops are also proposed on the ground floor level Building A, with a cumulative floor area of 410m<sup>2</sup>.

Off-street parking is proposed for a total of 87 cars, comprising 35 residential spaces, 4 visitor spaces, 47 commercial/retail and a designated car wash bay space, in a new two-level car parking area across two separate car parking areas, in accordance with Council and *SEPP 65* requirements as follows:

	<b>BUILDING A</b>	<b>BUILDING B</b>	<b>TOTAL</b>
Residential spaces	9	26	<b>35</b>
Visitor spaces	-	4	<b>4</b>
Commercial/retail spaces	47	-	<b>47</b>
Car wash bay	-	1	<b>1</b>
<b>TOTAL SPACES:</b>	<b>56</b>	<b>31</b>	<b>87</b>

Vehicular access to the car parking facilities is provided off John Cram Place.

Garbage collection for the proposed development is expected to be undertaken by Council's 9.7m long rigid garbage truck, with a loading area to be located on the ground floor level in Building B at the front of the garbage bin storage room, which includes a mechanical turntable, thereby allowing all service vehicles the ability to enter and exit the site in a forward direction at all times. Vehicular access to the loading area is to be provided via the abovementioned access arrangements off John Cram Place.

Loading/servicing for the proposed development is expected to be undertaken by a variety of light commercial vehicles such as "white vans", utility and the like. The loading area is to be

located on the ground floor level in Building A. Vehicular access to the loading area is also to be provided via the abovementioned access arrangements off John Cram Place.

Plans of the proposed development have been prepared by *Integrated Design Group* and are reproduced in Appendix A.

### 3. TRAFFIC ASSESSMENT

#### Road Hierarchy

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

Mulgoa Road and Castlereagh Road are classified by the RMS as *State Roads* which provide the key north-south road link in the area, linking Wallacia to Richmond. They typically carry two traffic lanes in each direction in the vicinity of the site, with additional lanes provided at key locations.

Jane Street, Belmore Street and North Street are also classified by the RMS as *State Roads* which provide the key east-west road link in the local area, linking Castlereagh Street to the Great Western Highway. The route typically carries one traffic lane in each direction in the vicinity of the site, with kerbside parking generally prohibited.

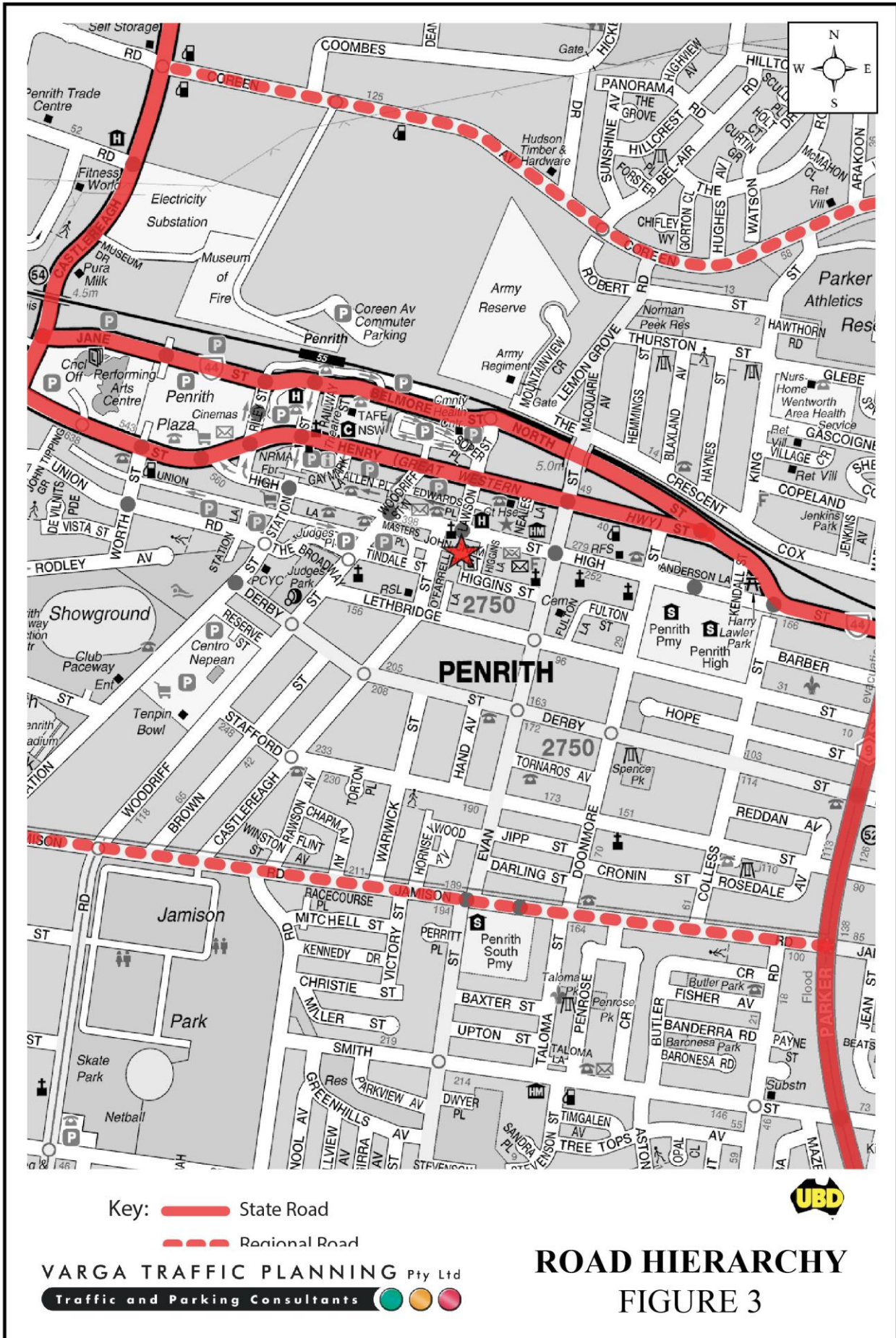
High Street is a local, unclassified road which is primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is permitted at selected locations, subject to signposted restrictions.

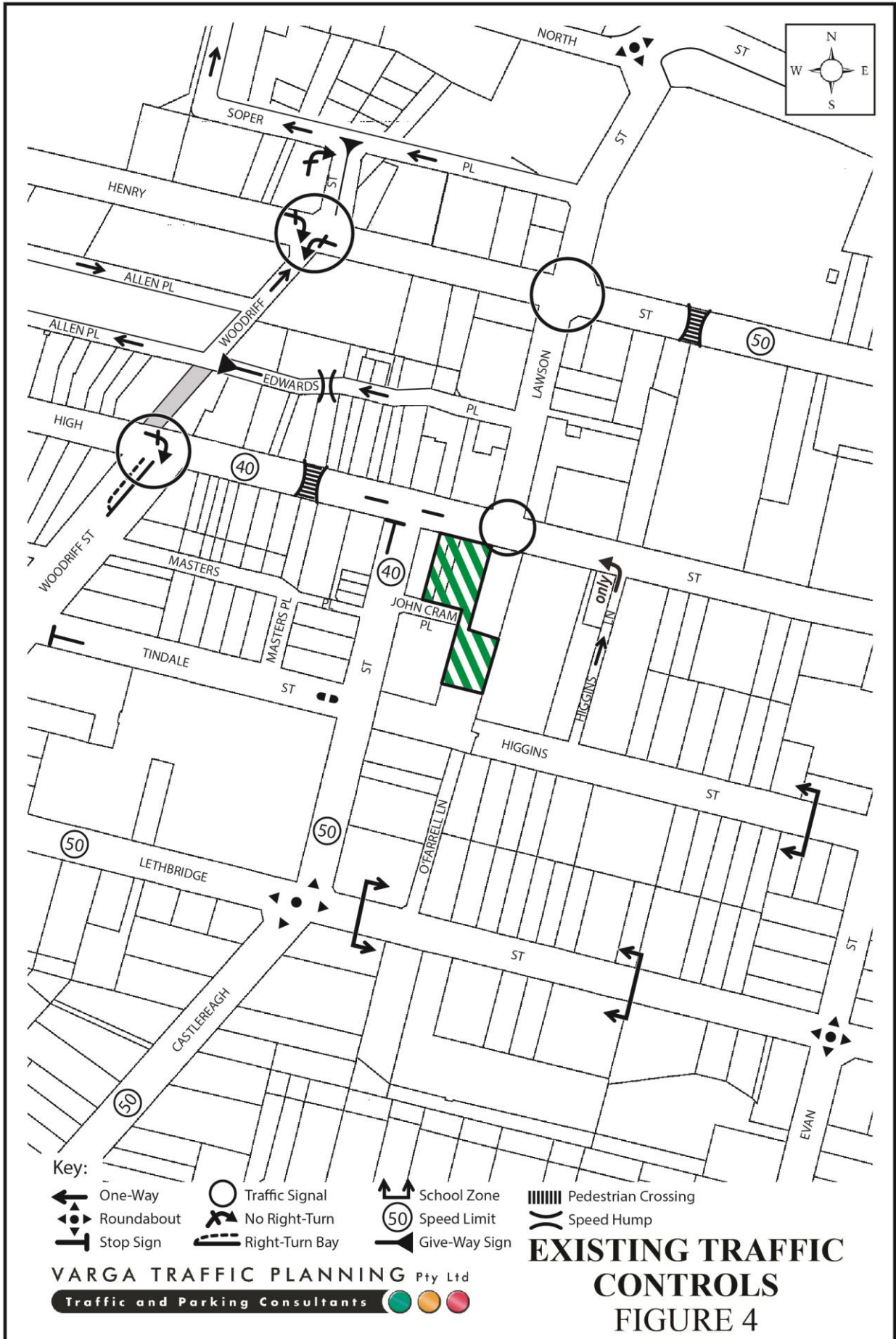
John Cram Place is a local, unclassified laneway which is primarily used to provide rear vehicular and pedestrian access to properties fronting High Street and Castlereagh Street. Kerbside parking is not permitted.

#### Existing Traffic Controls

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

- a 40 km/h SPEED LIMIT which applies to High Street, John Cram Place and Castlereagh Street (north of Tindale Street)





- a 50 km/h SPPED LIMIT which applies to Castlereagh Street (south of Tindale Street), Lethbridge Street and all other local roads in the area
- a 40km SCHOOL ZONE SPEED LIMIT which applies within the vicinity of St Nicholas of Myra Primary School
- TRAFFIC SIGNALS in High Street and in Henry Street where they intersect with Lawson Street and Woodriff Street
- NO RIGHT TURNING restriction eastbound High Street and eastbound Henry Street turning onto Woodriff Street
- a STOP SIGN in Castlereagh Street where it intersects with High Street
- a ROUNDABOUT in Lethbridge Street where it intersects with Castlereagh Street and Evan Street.

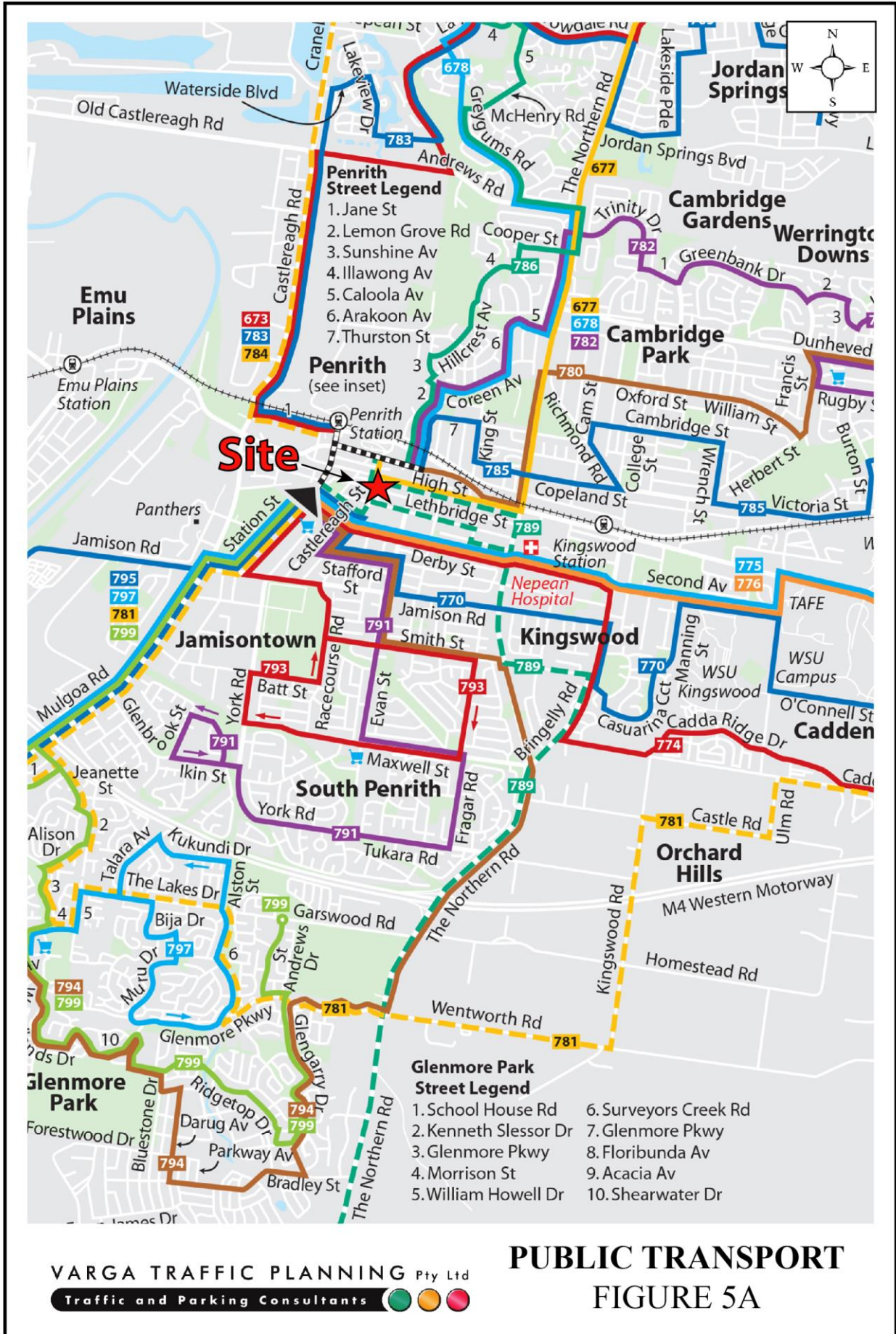
### **Existing Public Transport Service**

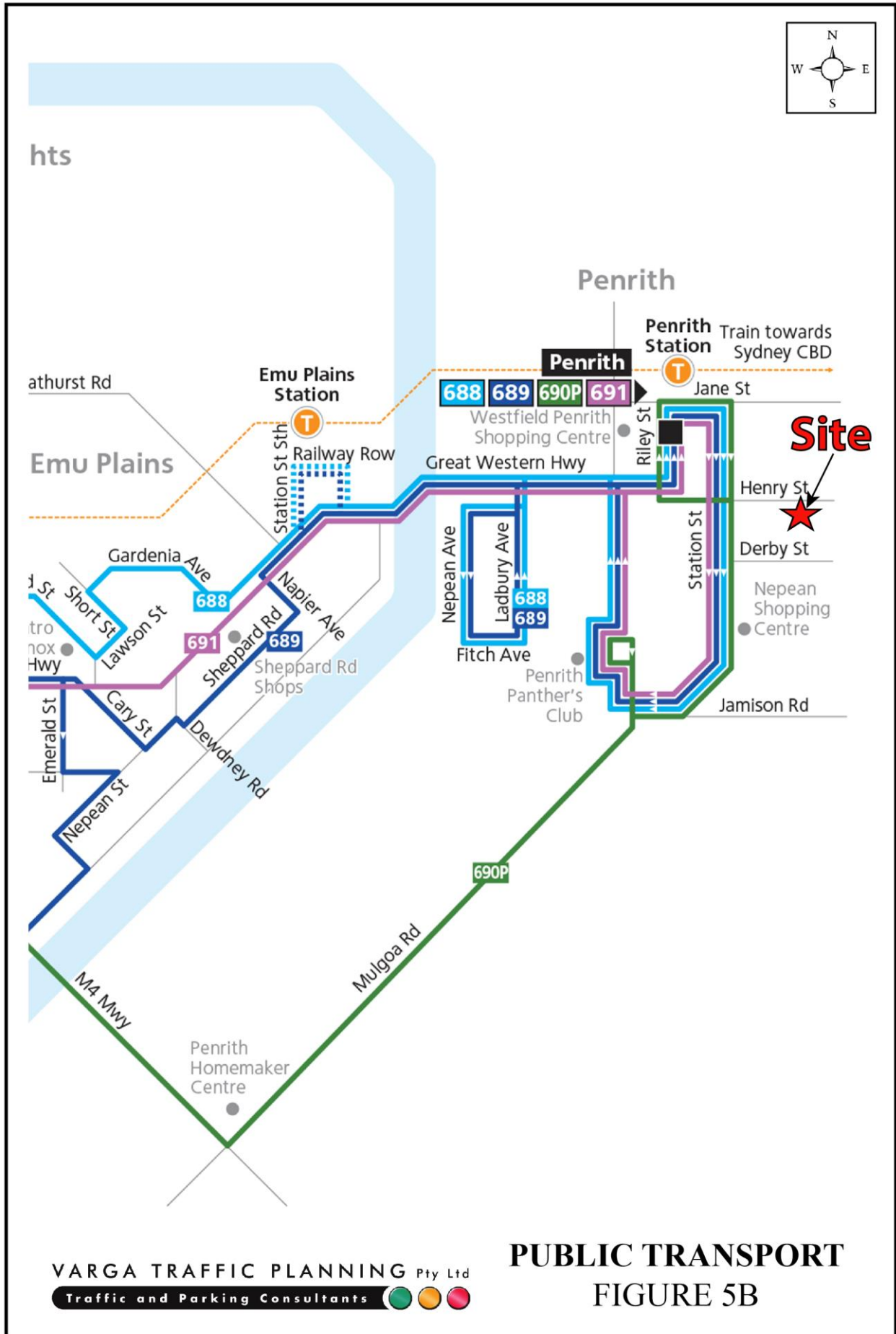
The subject site is conveniently located within easy walking distance to existing public transport services as illustrated on Figures 5a & 5b.

There are a number of bus stops located in the vicinity of the site including along High Street, Lawson Street and Henry Street, all within easy walking distance of the site. These bus services include the following:

- Route 677: Richmond to Penrith via Londonderry
- Route 678: Richmond to Penrith via Cranebrook
- Route 688: Penrith to Emu Heights (Loop Service)
- Route 689: Penrith to Leonay (Loop Service)
- Route 770: Mount Druitt to Penrith via St Marys
- Route 775: Mount Druitt to Penrith via Erskine Park
- Route 776: Mount Druitt to Penrith via St Clair
- Route 780: Mount Druitt to Penrith via Ropes Crossing







- Route 782: St Marys to Penrith via Werrington
- Route 785: Werrington to Penrith via Cambridge Park
- Route 786: Penrith to Cranebrook via North Penrith (Loop Service)
- Route 789: Luddenham to Penrith

Penrith railway station is also located approximately 550m from the site and is serviced by the T1 North Shore & Western Line operating between Emu Plains and Chatswood. Train services typically arrive/depart the station at 5-10 minute intervals during the commuter peak periods and 15 minute intervals during the day.

On the above basis, it is clear that the site has excellent connectivity to existing public transport services and is ideally located to encourage the greater use of the sustainable and active modes of transport.

Furthermore, the subject site also lies within the *Penrith Town Centre* which has a wide range of essential shops and services including a post office, butchery, cafés and restaurants, bakery, banks, bottle shop, pharmacy, hair dressers, beauticians and health services, all within easy walking distance of the site.

### **Projected Traffic Generation**

The traffic implications of development proposals primarily concern the effects of the *additional* traffic flows generated as a result of a development and its impact on the operational performance of the adjacent road network, particularly during the weekday morning and afternoon peak periods.

An indication of the traffic generation potential of the development proposal is provided by reference to the Roads and Maritime Services publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)* and the updated traffic generation rates in the RMS's *Technical Direction (TDT 2013/04a)* document.

The TDT 2013/04a document states that it replaces those sections of the RMS *Guidelines* indicated, and must be followed when RMS is undertaking trip generation and/or parking demand assessments.

The RMS *Guidelines* and the updated TDT 2013/04a are based on extensive surveys of a wide range of land uses and nominate the following traffic generation rates which are applicable to the development proposal:

**Office Blocks**

AM: 1.6 peak hour vehicle trips per 100m<sup>2</sup> GFA

PM: 1.2 peak hour vehicle trips per 100m<sup>2</sup> GFA

**High Density Residential Flat Dwellings**

AM: 0.19 peak hour vehicle trips per unit

PM: 0.15 peak hour vehicle trips per unit

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

**Definition**

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

**Factors**

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

The RMS *Guidelines* and the TDT 2013/04a also does not nominate a traffic generation rate for small, local shops, referring only to major regional shopping centres incorporating supermarkets and department stores. For the purposes of this assessment, the traffic generation rate nominated in the *TDT 2013/04a* for “office blocks” has been adopted in respect of the retail uses of the site.

Application of the above traffic generation rates to the various components of the development proposal yields a traffic generation potential of approximately 51 vehicle trips per hour (vph) during the AM commuter peak period and 39 vph during the PM commuter peak period, as set out below:

**Projected Future Traffic Generation Potential**

	<b>AM</b>	<b>PM</b>
Residential (29 apartments):	5.5 vph	4.4 vph
Commercial (2,441m <sup>2</sup> ):	39.1 vph	29.3 vph
Retail (410m <sup>2</sup> ):	6.6 vph	4.9 vph
<b>TOTAL TRAFFIC GENERATION POTENTIAL:</b>	<b>51.2 vph</b>	<b>38.6 vph</b>

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

Application of the above traffic generation rates to the various components of the previously approved development and existing development also yields a traffic generation potential of 25 vph during the AM commuter peak period and 19 vph during the PM commuter peak period as set out below:

**Previously Approved Traffic Generation Potential**

	<b>AM</b>	<b>PM</b>
<b>342-344 High Street (Previously Approved)</b>		
Residential (45 apartments):	8.6 vph	6.8 vph
Commercial (693m <sup>2</sup> ):	11.1 vph	8.3 vph
<b>348-350 High Street (Existing)</b>		
Commercial (300m <sup>2</sup> ):	4.8 vph	3.6 vph
<b>TOTAL TRAFFIC GENERATION POTENTIAL:</b>	<b>24.5 vph</b>	<b>18.7 vph</b>

Accordingly, it is likely that the proposed development will result in a *nett increase* in the traffic generation potential the site of 27 vph during the AM commuter peak period and 20 vph during the PM commuter peak period as set out below:

**Projected Nett Change in Peak Hour Traffic Generation Potential of the Site as a Consequence of the Modified Development Proposal**

	<b>AM</b>	<b>PM</b>
Projected Future Traffic Generation Potential:	51.2 vph	38.6 vph
Less Previously Approved Traffic Generation Potential:	-24.5 vph	-18.7 vph
<b>NETT CHANGE IN TRAFFIC GENERATION POTENTIAL:</b>	<b>26.7 vph</b>	<b>19.9 vph</b>

That projected *nett increase* in traffic activity as a consequence of the development proposal is consistent with the *B4* zoning objectives of the area, and will clearly not have any unacceptable traffic implications in terms of road network capacity.

## 4. PARKING IMPLICATIONS

### Existing Kerbside Parking Restrictions

The existing kerbside parking restrictions which apply to the road network in the vicinity of the site are illustrated on Figure 6 and comprise:

- NO STOPPING restrictions along various sections within the vicinity of the site, including along a small section along the High Street site frontage
- ½ HOUR PARKING restrictions along various sections within the vicinity of the site including along the High Street site frontage
- NO PARKING restrictions along both sides of John Cram Place, including along the John Cram Place site frontage
- BUS ZONES located at regular intervals along both sides of High Street.

### Off-Street Car Parking Provisions

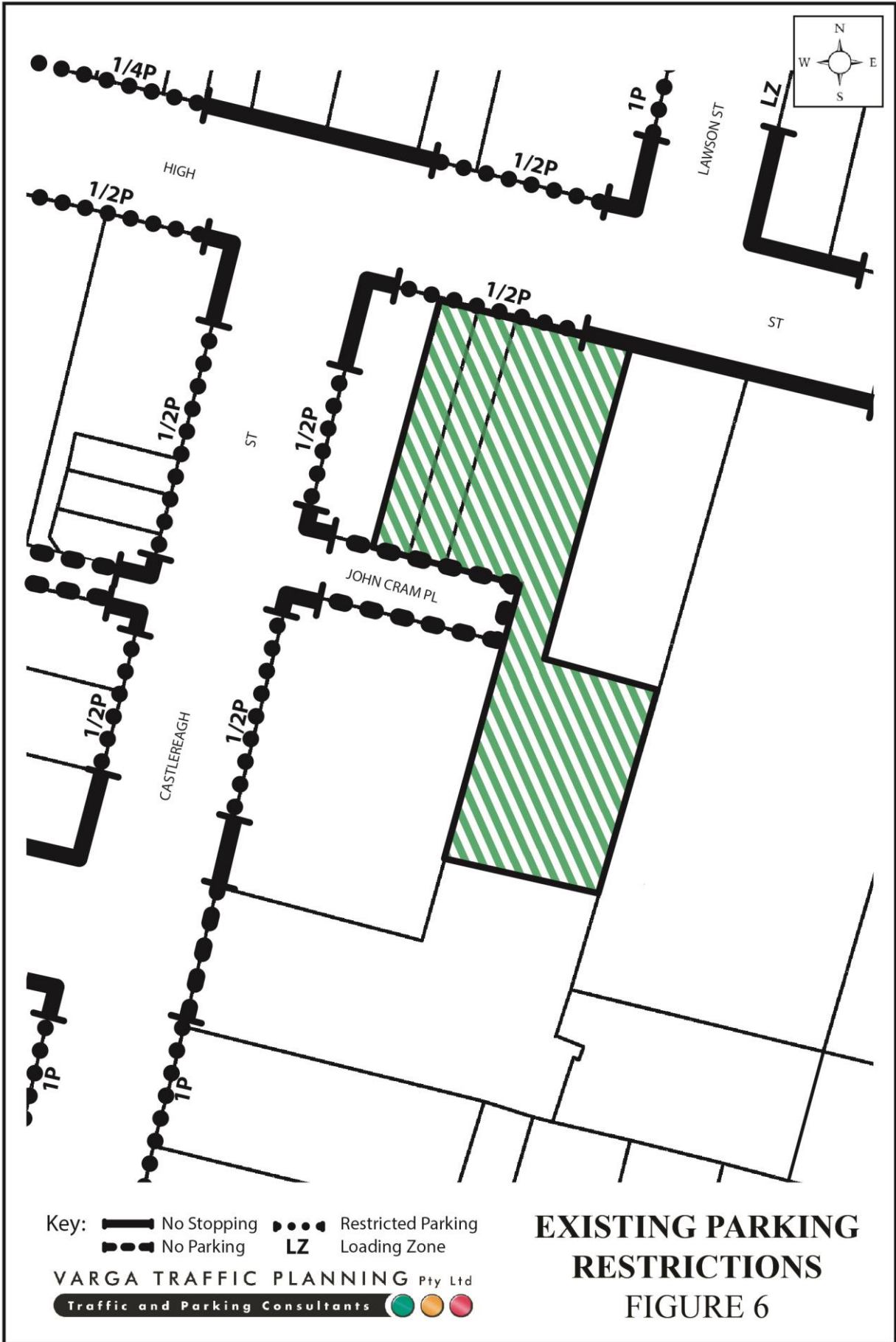
The off-street car parking requirements applicable to the development proposal are specified in Council's *Development Control Plan 2014, Part C10 Transport Access and Parking* document and the RMS *Guidelines* which are reproduced below:

#### **Penrith DCP 2014 - Residential Flat Buildings**

One or two bedroom dwelling:	1 space per dwelling
Three or more bedroom dwelling:	2 spaces per dwelling
Visitors:	1 space per 5 dwellings
Service Bay:	1 space per 40 dwellings
Car Wash Bay:	1 space per 50 dwellings

#### **Office Premises (Penrith City Centre)**

1 space per 100m<sup>2</sup> GFA



Key: **—** No Stopping    **●●●** Restricted Parking  
**- - -** No Parking    **LZ** Loading Zone

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 Traffic and Parking Consultants

**EXISTING PARKING  
 RESTRICTIONS  
 FIGURE 6**



Note: A maximum of 60% of the total number of commercial parking spaces required by a development, other than service vehicles, car washing bays and parking spaces allocated to people with a disability, are to be provided on site. The balance of the total required number of spaces not provided on site would be subject to a contribution under an adopted Contribution Plan or as set by the terms of a Voluntary Planning Agreement.

**Retail Premises (Penrith City Centre)**

1 space per 30m<sup>2</sup> GFA

Application of the above *DCP 2014* parking rates to the various components outlined in the development proposal yields an off-street parking provision of 80 parking spaces as set out below:

	<b>BUILDING A</b>	<b>BUILDING B</b>	<b>TOTAL</b>
Residential:	6	29	<b>35</b>
Visitors:	-	5	<b>5</b>
Commercial (2,441m <sup>2</sup> ):	24	-	<b>24</b>
Retail (410m <sup>2</sup> ):	14	-	<b>14</b>
Car Wash Bay:	0	1	<b>1</b>
<b>TOTAL SPACES:</b>	<b>44</b>	<b>35</b>	<b>79</b>

However, the subject site is located “*within 800 metres of a railway station*” in the Sydney metropolitan area, and therefore the residential component of the development is also subject to the parking requirements specified in the *State Environmental Planning Policy No 65 – Design Quality of Residential Flat Development (Amendment No 3), 2015* in the following terms:

**30 Standards that cannot be used to refuse development consent or modification of development consent**

- (1) If an application for the modification of a development consent or a development application for the carrying out of development to which this Policy applies satisfies the following design criteria, the consent authority must not refuse the application because of those matters:
  - a) if the car parking for the building will be equal to, or greater than, the recommended minimum amount of car parking specified in Part 3J of the Apartment Design Guide.

Reference is therefore made to the *Apartment Design Guide 2015, Section 3J – Bicycle and Car Parking* document which nominates the following car parking requirements:

**Objective 3J-1**

Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas

For development in the following locations:

- on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or
- on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre

the minimum car parking requirements for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less.

The car parking needs for a development must be provided off street.

Comparison therefore needs to be drawn between the off-street car parking requirements for the residential flat buildings outlined in the *Penrith DCP 2014* and also the *RMS Guidelines* to determine the *lesser* requirement. The relevant car parking rates outlined in the *RMS Guidelines* are reproduced below:

**RMS Guidelines - High Density Residential Flat Buildings in Metropolitan Regional (CBD) Centres**

- 0.4 spaces per 1 bedroom unit
- 0.7 spaces per 2 bedroom unit
- 1.2 spaces per 3 bedroom unit
- 1 space per 7 units for visitor parking

Accordingly, the minimum off-street car parking requirement applicable to the proposed development is 64 spaces, as set out below:

	BUILDING A	BUILDING B	TOTAL
Residential:	4	17	21 (SEPP 65/RMS)
Visitors:	-	4	4 (SEPP 65/RMS)
Commercial (2,441m <sup>2</sup> ):	24	-	24 (DCP)
Retail (410m <sup>2</sup> ):	14	-	14 (DCP)
Car Wash Bay:	0	1	1 (DCP)
<b>TOTAL SPACES:</b>	<b>42</b>	<b>22</b>	<b>64</b>

The proposed development makes provision for a total of 87 off-street parking spaces, comprising 35 residential spaces, 4 visitor spaces, 47 commercial/retail spaces and a designated car wash bay, thereby satisfying Council and *SEPP 65* requirements as follows:

	<b>BUILDING A</b>	<b>BUILDING B</b>	<b>TOTAL</b>
Residential spaces	9	26	<b>35</b>
Visitor spaces	-	4	<b>4</b>
Commercial/retail spaces	47	-	<b>47</b>
Car wash bay	-	1	<b>1</b>
<b>TOTAL SPACES:</b>	<b>56</b>	<b>31</b>	<b>87</b>

The geometric design layout of the proposed car parking facilities has been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1:2004* and *Parking Facilities Part 6 - Off-Street Parking for People with Disabilities AS2890.6:2009* in respect of parking bay dimensions, ramp gradients and aisle widths.

### **Off-Street Bicycle Parking Provisions**

The off-street bicycle parking requirements applicable to the development proposal are specified in the *Planning Guidelines for Walking and Cycling* document in the following terms:

#### **Residential Housing**

1 bedroom unit:	20-30% units
2 or more bedroom unit:	20-30% units
Visitors:	5-10% units

#### **Commercial Offices**

Staff:	3-5% staff
Customers:	5-10% staff

#### **Retail Shops**

Staff:	3-5% staff
Customers:	5-10% staff

It has been estimated that there will be a total of approximately 270 commercial/retail staff on site. Accordingly, the off-street bike parking requirement applicable to the proposed development is 29-53 spaces, as set out below:

Residential (29 apartments):	6-9 spaces
Residential visitors:	1-3 spaces
Commercial/Retail staff (270 staff):	8-14 spaces
Commercial/Retail visitors:	14-27 spaces
<b>TOTAL:</b>	<b>29-53 spaces</b>

The proposed development makes provision for a total of 37 off-street bicycle parking spaces across both buildings, thereby satisfying Council's bicycle parking requirements.

### **Loading/Service Provisions**

Garbage collection for the proposed mixed use development is expected to be undertaken by Council's 9.7m long rigid garbage truck, with a loading area to be located on the ground floor level in Building B at the front of the garbage bin storage room. The manoeuvring area and entry ramp have been designed to accommodate the swept turning path and ground clearance requirements of these rigid trucks and also includes a mechanical turntable, thereby allowing all trucks to enter and exit the site in a forward direction at all times and also without scraping or bottoming out as reproduced in Appendix B.

Loading/service for the proposed mixed use development is also expected to be undertaken by a variety of light commercial vehicles such as "white vans", utility and the like. The loading area is to be located on the ground floor level in Building A. The manoeuvring area has been designed to accommodate the swept turning path requirements of these vehicles, allowing them to enter the site in a reverse direction and exit the site in a forward direction at all times.

### **Conclusion**

This application seeks approval to modify the unit mix, commercial area and car parking layout of the previously approved development. It also involves amalgamation of the

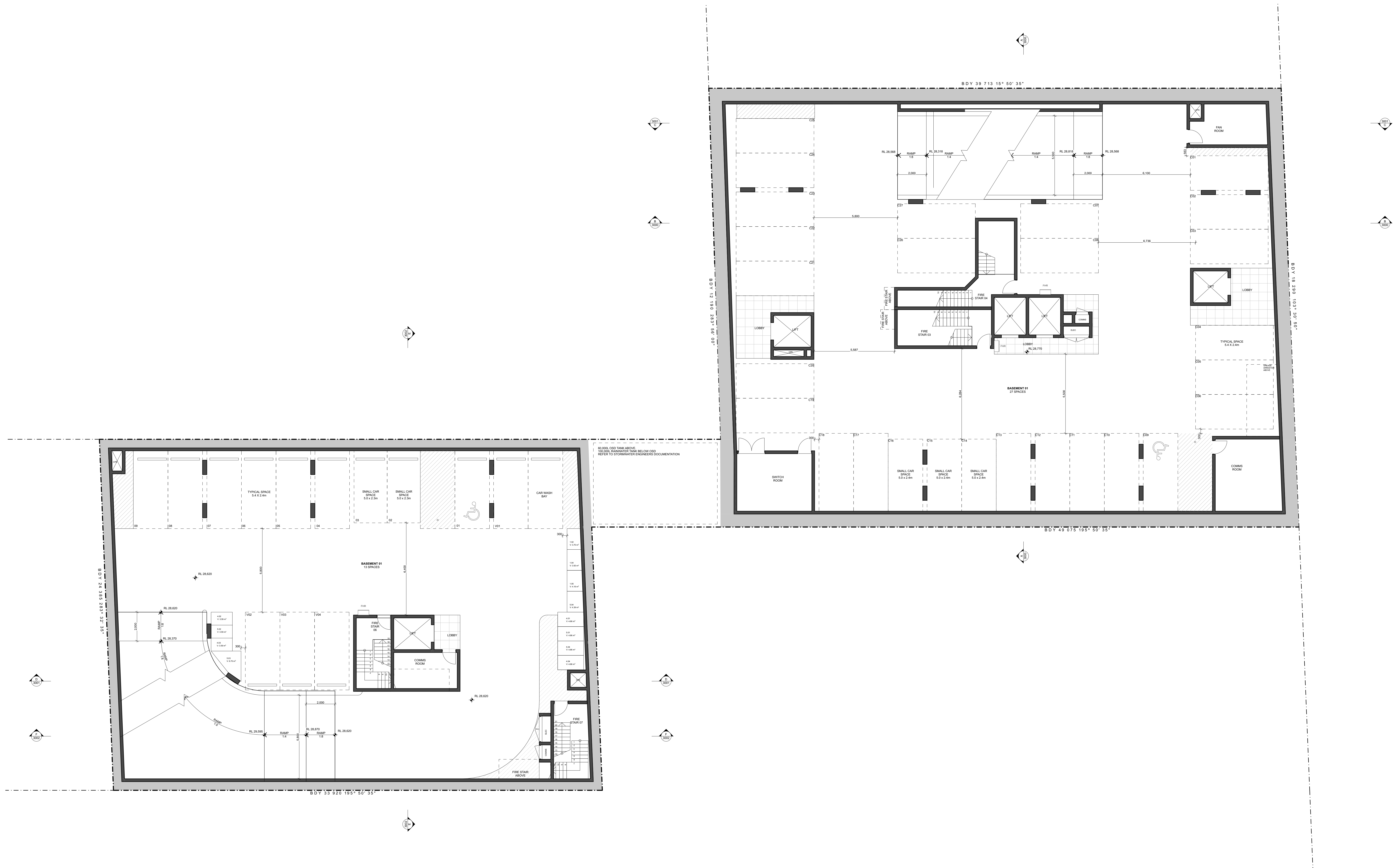
previously approved development site with 348-350 High Street to facilities the construction of a new mixed use residential / commercial / retail development.

The foregoing has found that the proposed development is expected to generate in the order of 39-51 vph during the weekday commuter peak periods. This level of traffic activity is consistent with the current planning controls which apply to the site and will not result in any unacceptable traffic implications.

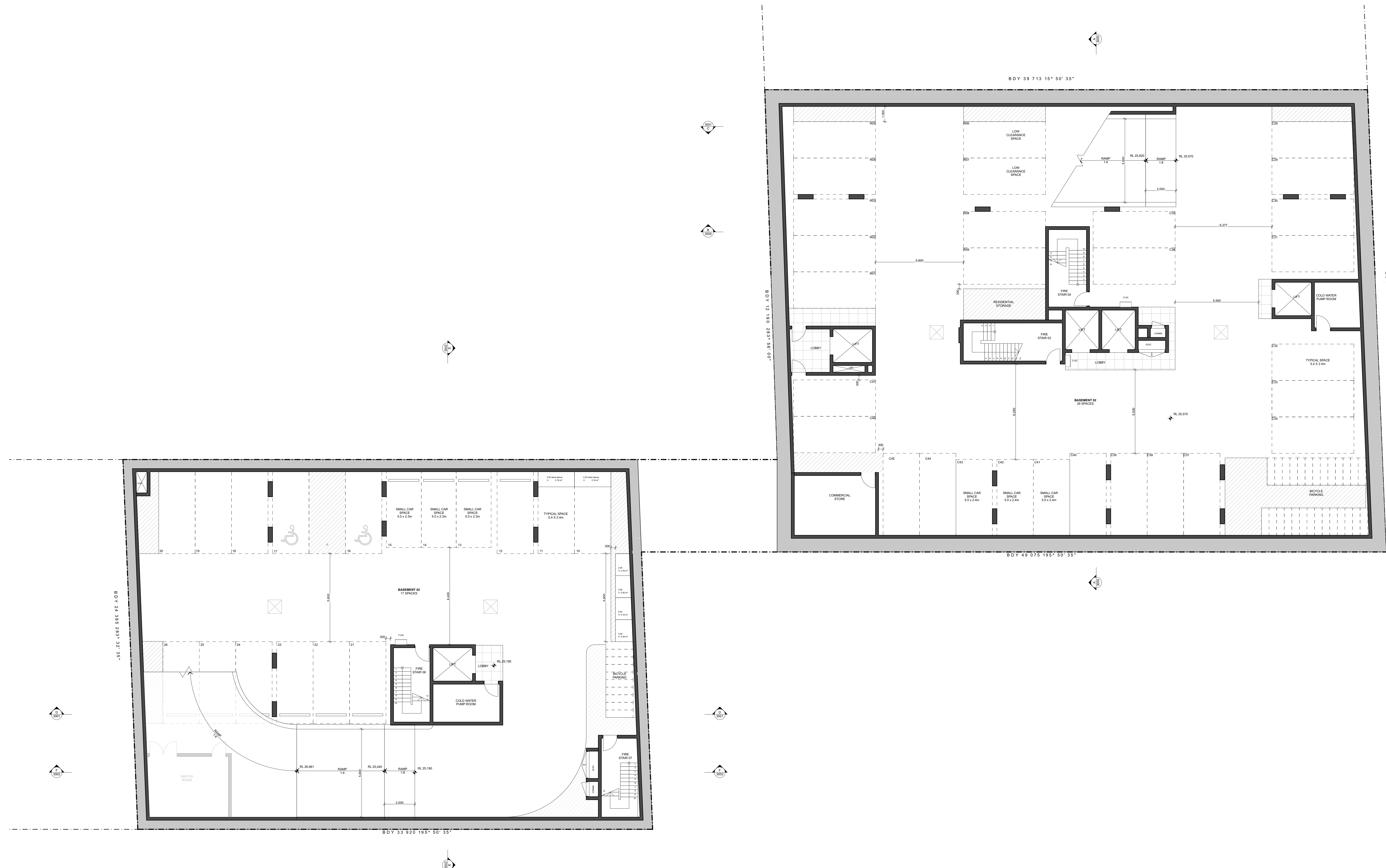
Furthermore, the proposed parking and facilities satisfy the relevant requirements specified in Council's *PDCP 2014*, *SEPP 65* as well as the Australian Standards and it is therefore concluded that the proposed development will not have any unacceptable parking or loading implications.

**APPENDIX A**

**ARCHITECTURAL PLANS**



BELOW 100 TANK ABOVE  
TOLERANCE THAN BELOW FOR  
REFER TO ENGINEER'S DOCUMENTATION



NOTES

1. Spatial dimensions take precedence over scaled drawings.
2. Contractors to check and verify all levels before and throughout on site.
3. All materials and workmanship to be in accordance with current written standards, specifications, standards and DAAs unless otherwise stated.
4. Confirming information to be brought to notice of the architect and confirmation sought before proceeding with any works.
5. All drawings are for information only and subject to further design development, consultation, approval and regulatory requirements.
6. Refer to General notes page for general and administrative matters.

DISCIPLINES

Architect	Colin & Andrea Henry
Structural	Colin & Andrea Henry
MEP	Colin & Andrea Henry
Civil	Colin & Andrea Henry
Electrical	Colin & Andrea Henry
Fire	Colin & Andrea Henry
Transport	Colin & Andrea Henry
Water	Colin & Andrea Henry
Waste	Colin & Andrea Henry
Energy	Colin & Andrea Henry
Health	Colin & Andrea Henry
Other	Colin & Andrea Henry

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Waste	Colin & Andrea Henry
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Other	Colin & Andrea Henry

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Fire	Colin & Andrea Henry
Transport	Colin & Andrea Henry
Water	Colin & Andrea Henry
Waste	Colin & Andrea Henry
Energy	Colin & Andrea Henry
Health	Colin & Andrea Henry
Other	Colin & Andrea Henry

DISCIPLINES

Architect	Colin & Andrea Henry
Structural	Colin & Andrea Henry
MEP	Colin & Andrea Henry
Civil	Colin & Andrea Henry
Electrical	Colin & Andrea Henry
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Other	Colin & Andrea Henry

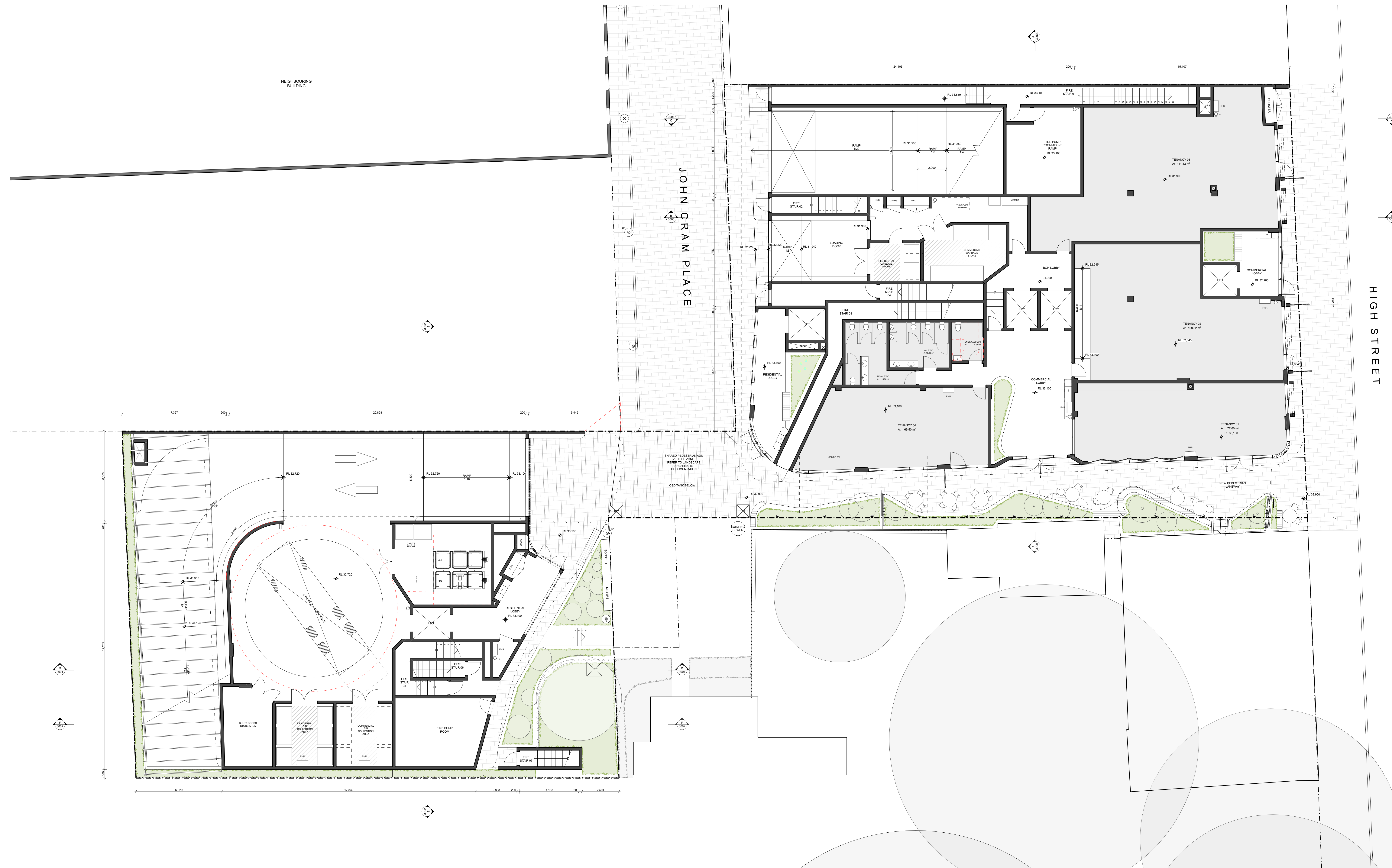
DISCIPLINES

Architect	Colin & Andrea Henry
Structural	Colin & Andrea Henry
MEP	Colin & Andrea Henry
Civil	Colin & Andrea Henry
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**NOTES**

1. General dimensions take precedence over scaled drawings.
2. Contractors to check and verify all levels before and throughout on site.
3. All materials and workmanship to be in accordance with current written standards, specifications, standards and DAAs unless otherwise stated.
4. Confirming information to be brought to notice of the architect and confirmation sought before proceeding with any works.
5. All drawings are for information only and do not constitute a contract. Development consent is required for all works.
6. Refer to General notes page for general and administrative information.

**DISCIPLINES**

Architect: Colin & Andrea Henry  
 Landscape: MRS-C-A-H  
 Structural: MRS-C-A-H  
 Mechanical: MRS-C-A-H  
 Electrical: MRS-C-A-H  
 Civil: MRS-C-A-H  
 Fire: MRS-C-A-H  
 Survey: MRS-C-A-H  
 Quantity: MRS-C-A-H  
 Cost: MRS-C-A-H  
 Sustainability: MRS-C-A-H  
 Heritage: MRS-C-A-H

**DISCIPLINES**

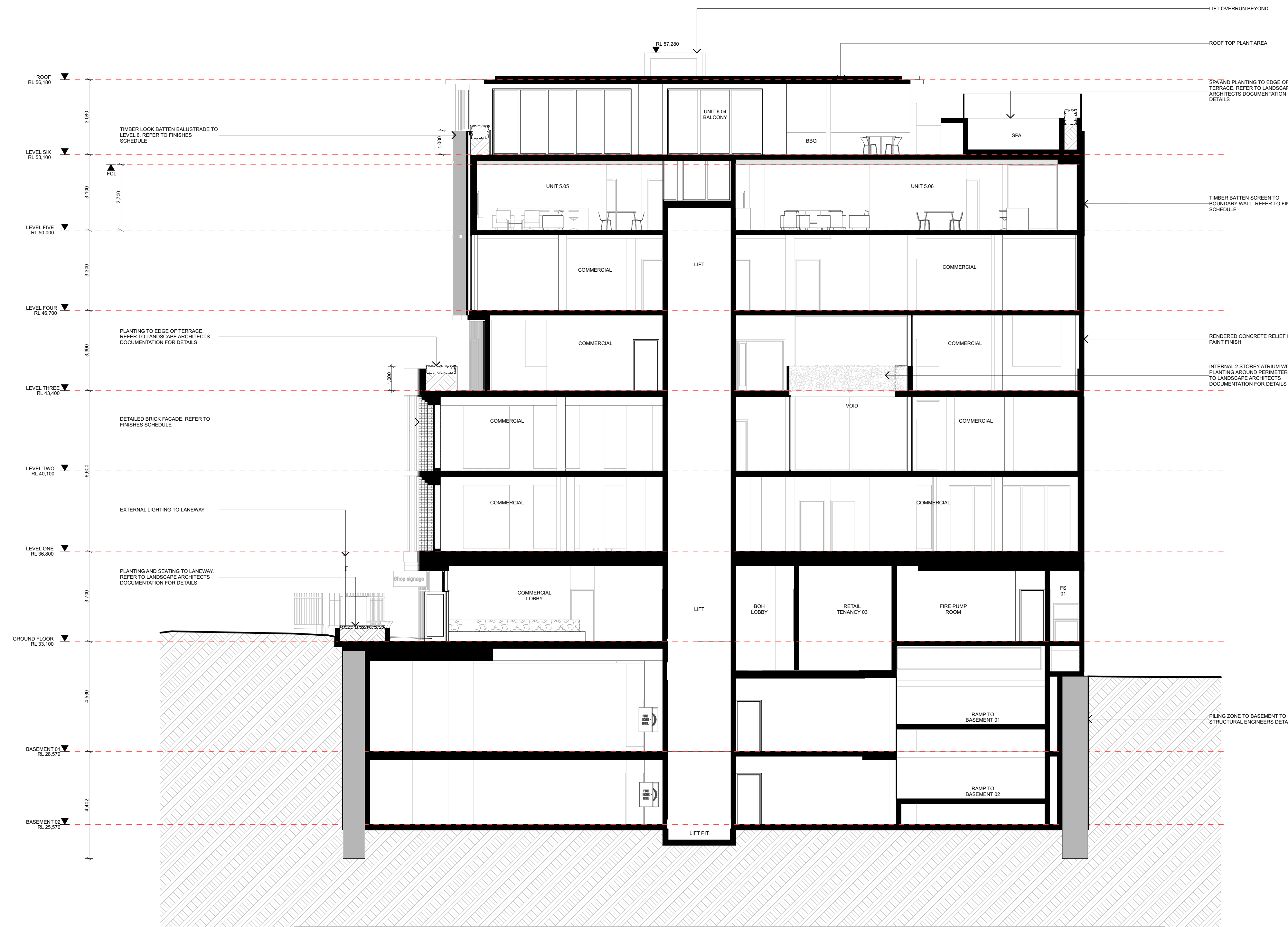
0100: Sydney Hens Hennessy

CLIENT  
**Colin & Andrea Henry**

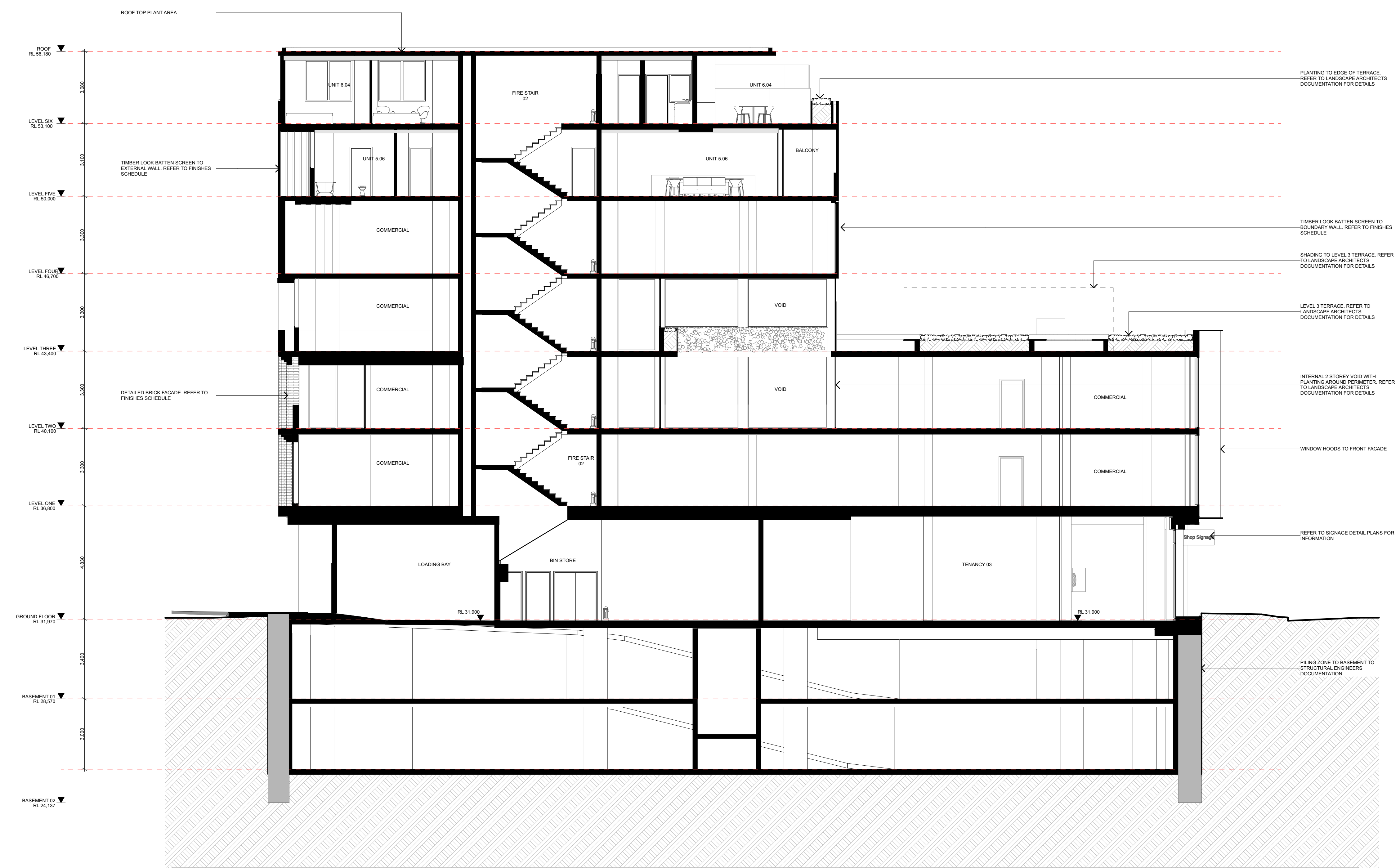
PROJECT  
**MIXED USE DEVELOPMENT**  
 SITE: 241-250 High Street North  
 STAMPS: LDR 1 & 2 SP 3100  
 REF: 10/10/18

REVISION	NO.	DESCRIPTION	DATE	BY	CHECKED
1	A	ISSUE FOR CLIENT REVIEW	24/02/18	C	A
2	B	ISSUE FOR PRELIMINARY	27/02/18	C	A
3	C	ISSUE FOR CONSULTANT COORDINATION	06/03/18	C	A
4	D	ISSUE FOR CONSULTANT COORDINATION	13/03/18	C	A
5	E	ISSUE FOR CONSULTANT COORDINATION	13/03/18	C	A
6	F	PRELIMINARY CLIENT FOR DA	13/03/18	C	A
7	G	ISSUE FOR PRELIMINARY CONSULTING	27/03/18	C	A
8	H	ISSUE FOR CLIENT REVIEW	29/03/18	C	A
9	I	ISSUE FOR DESIGN CHALLENGE SUBMISSION	01/04/18	C	A
10	J	ISSUE FOR CONSULTANT COORDINATION	01/04/18	C	A

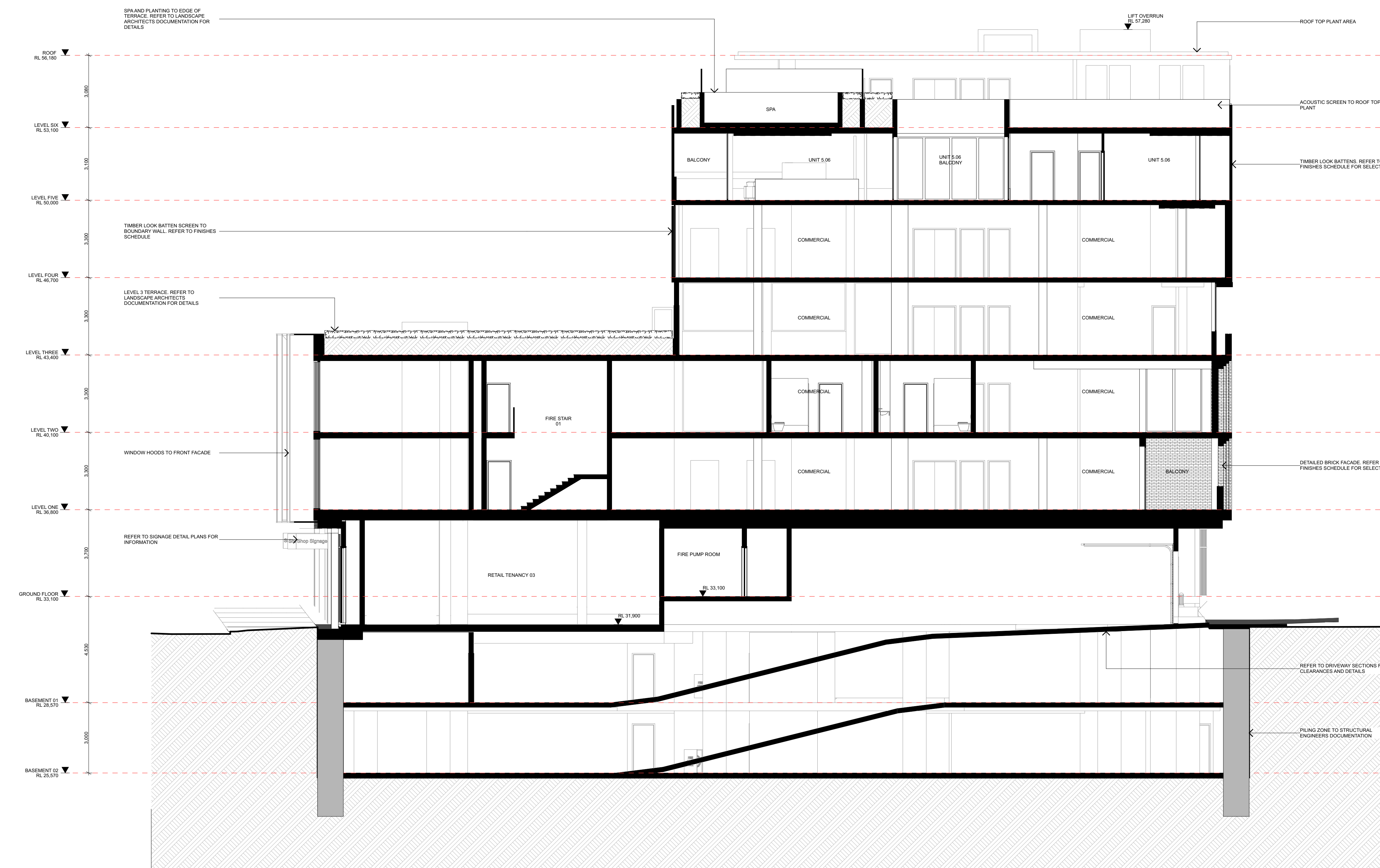
DATE: 01/04/18  
**GROUND LEVEL PLAN**  
 DRAWING: DA-1100 S  
 SCALE: 1:100 @ A2



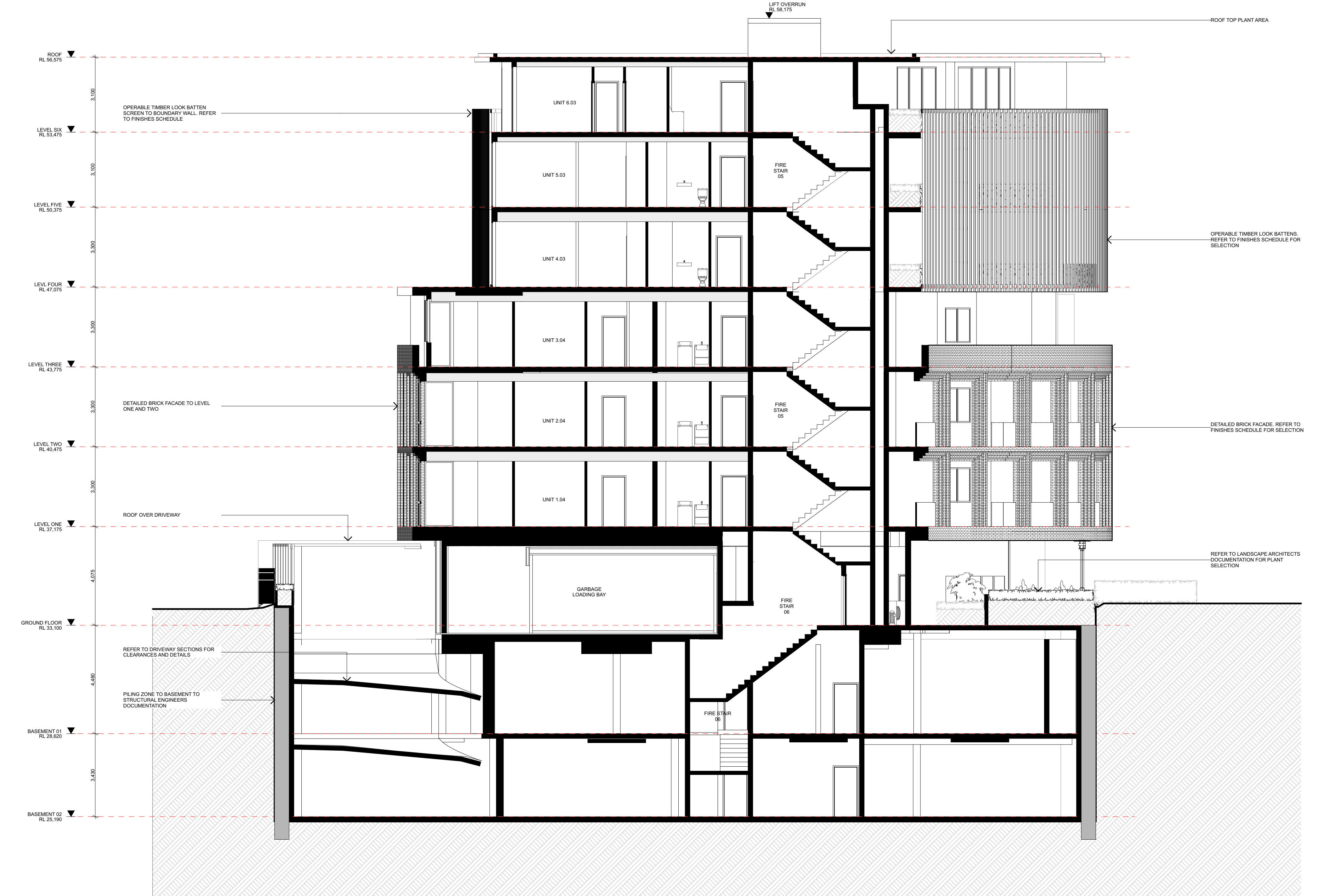
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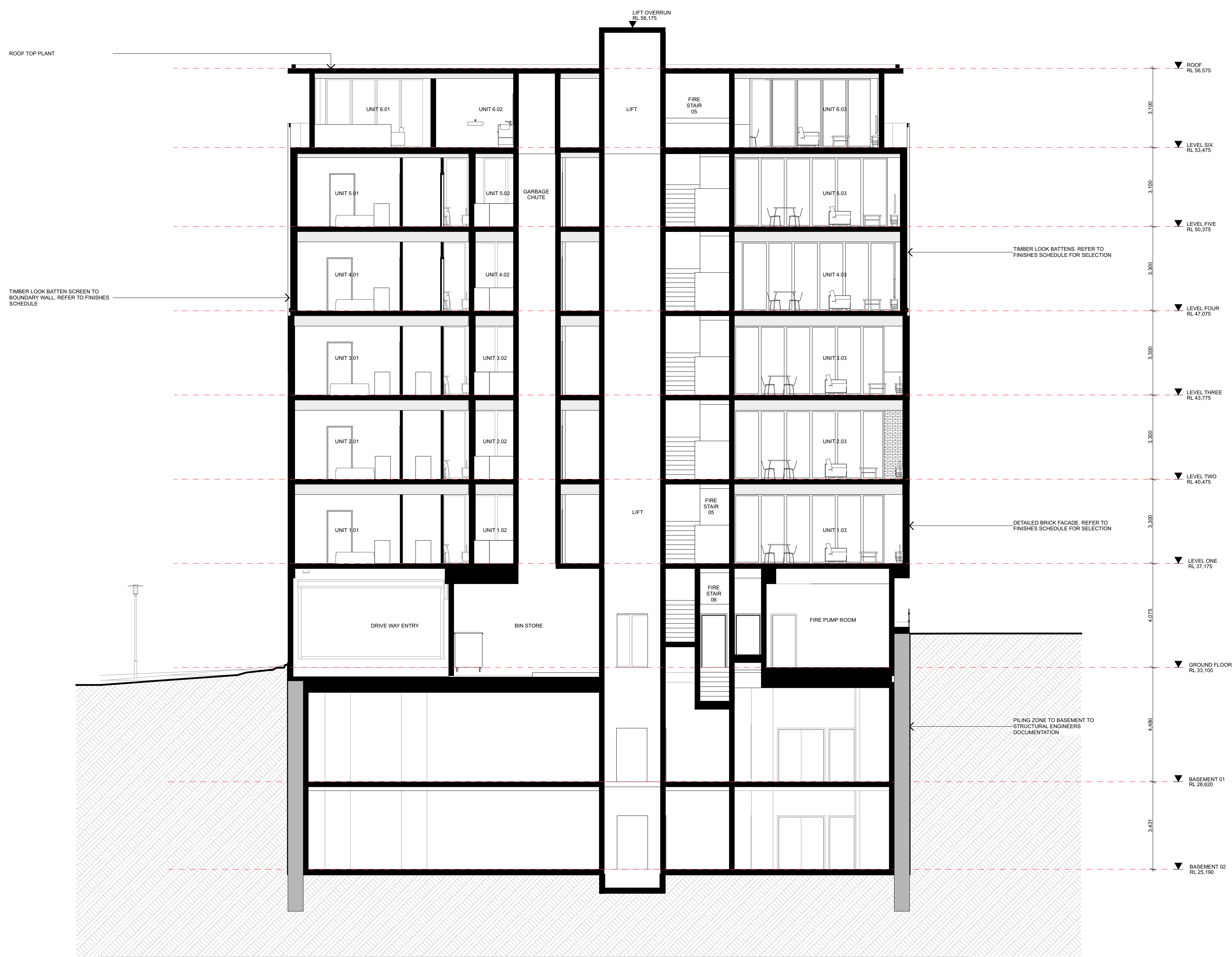
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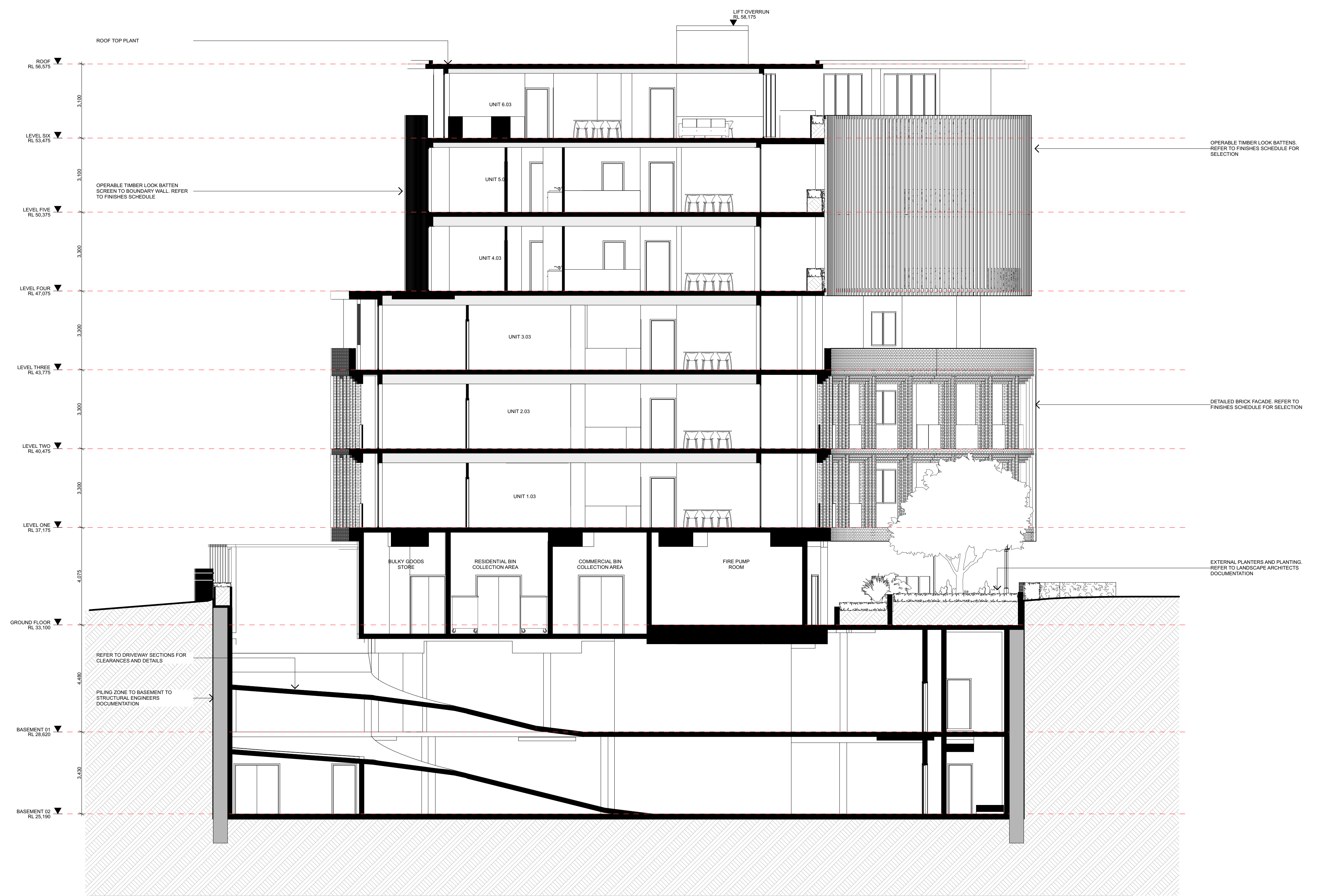
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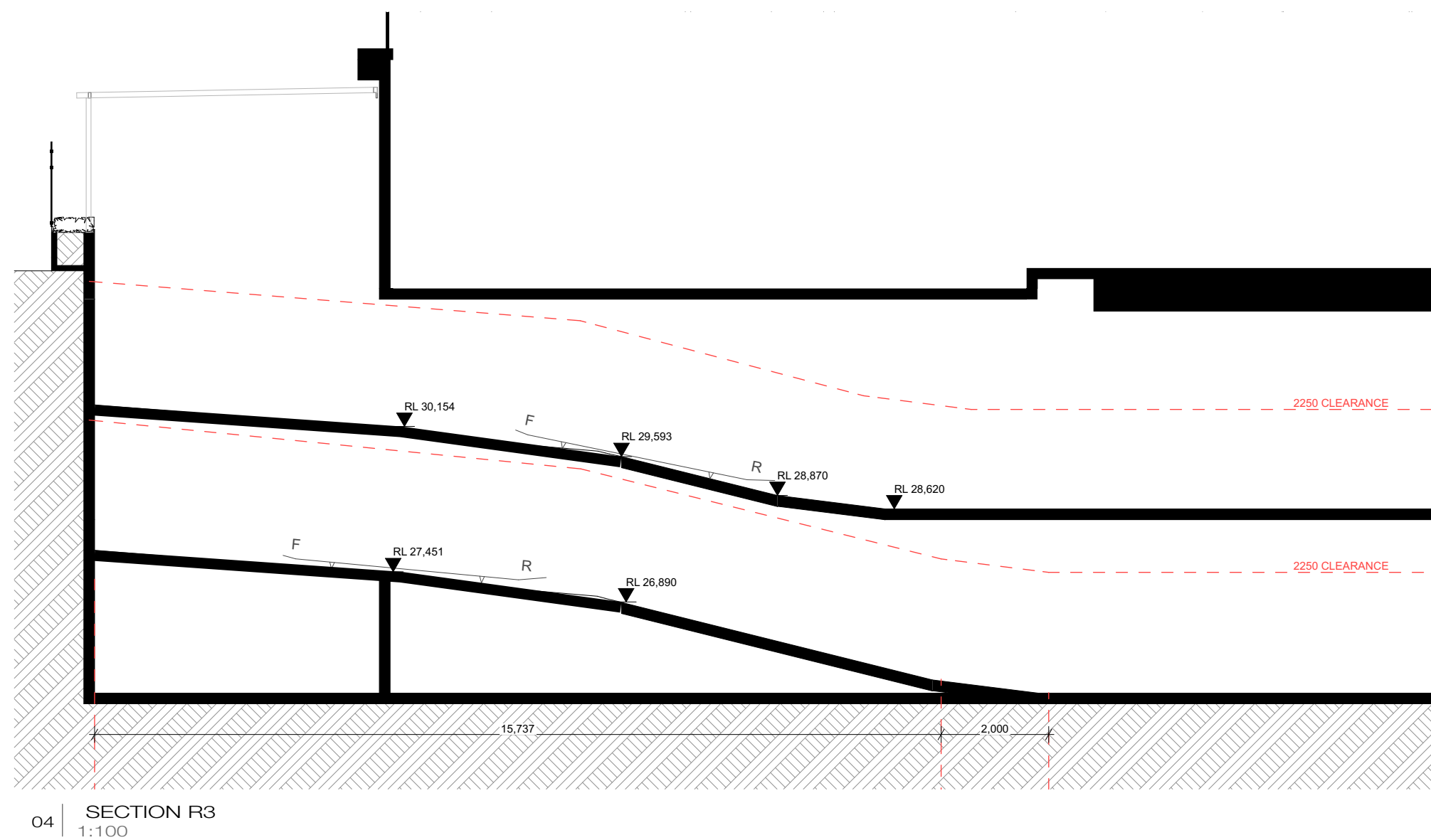
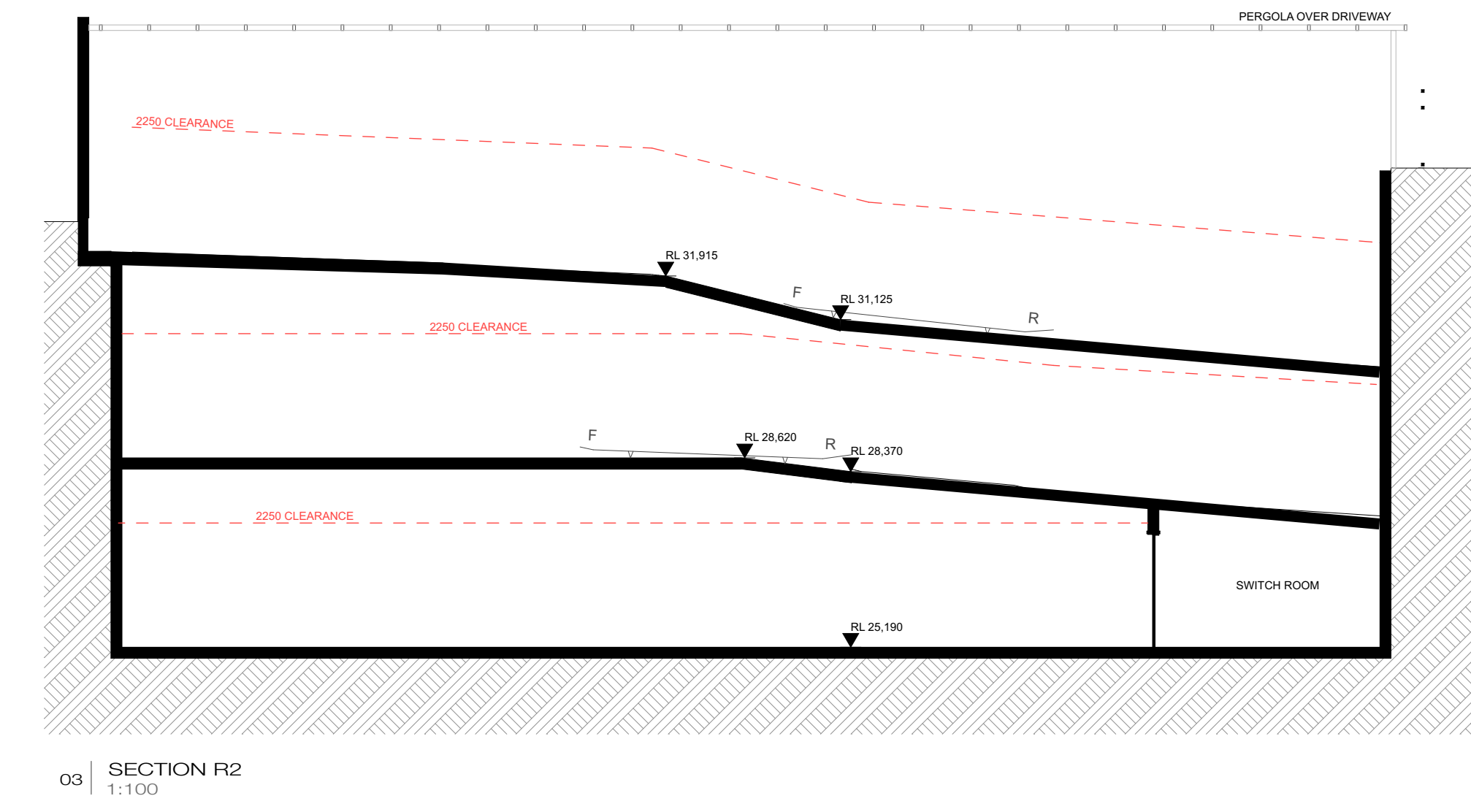
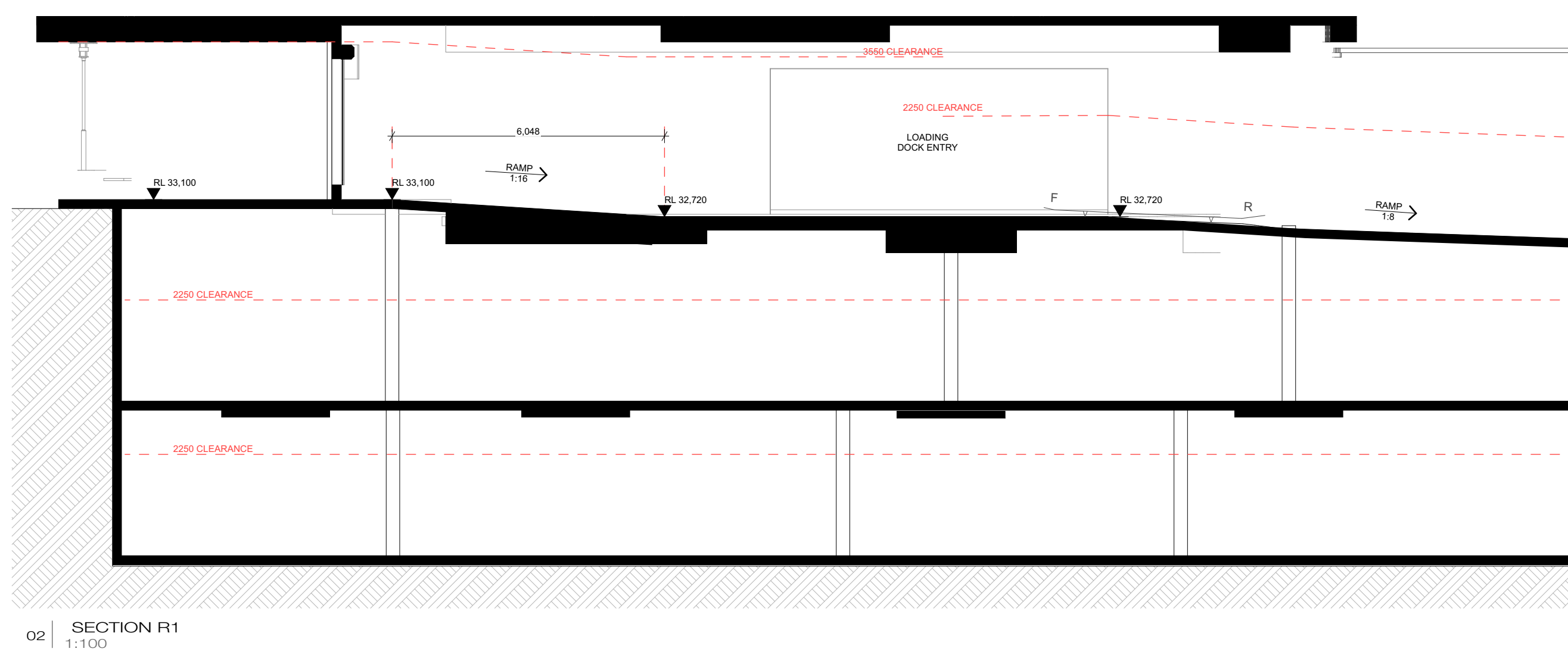
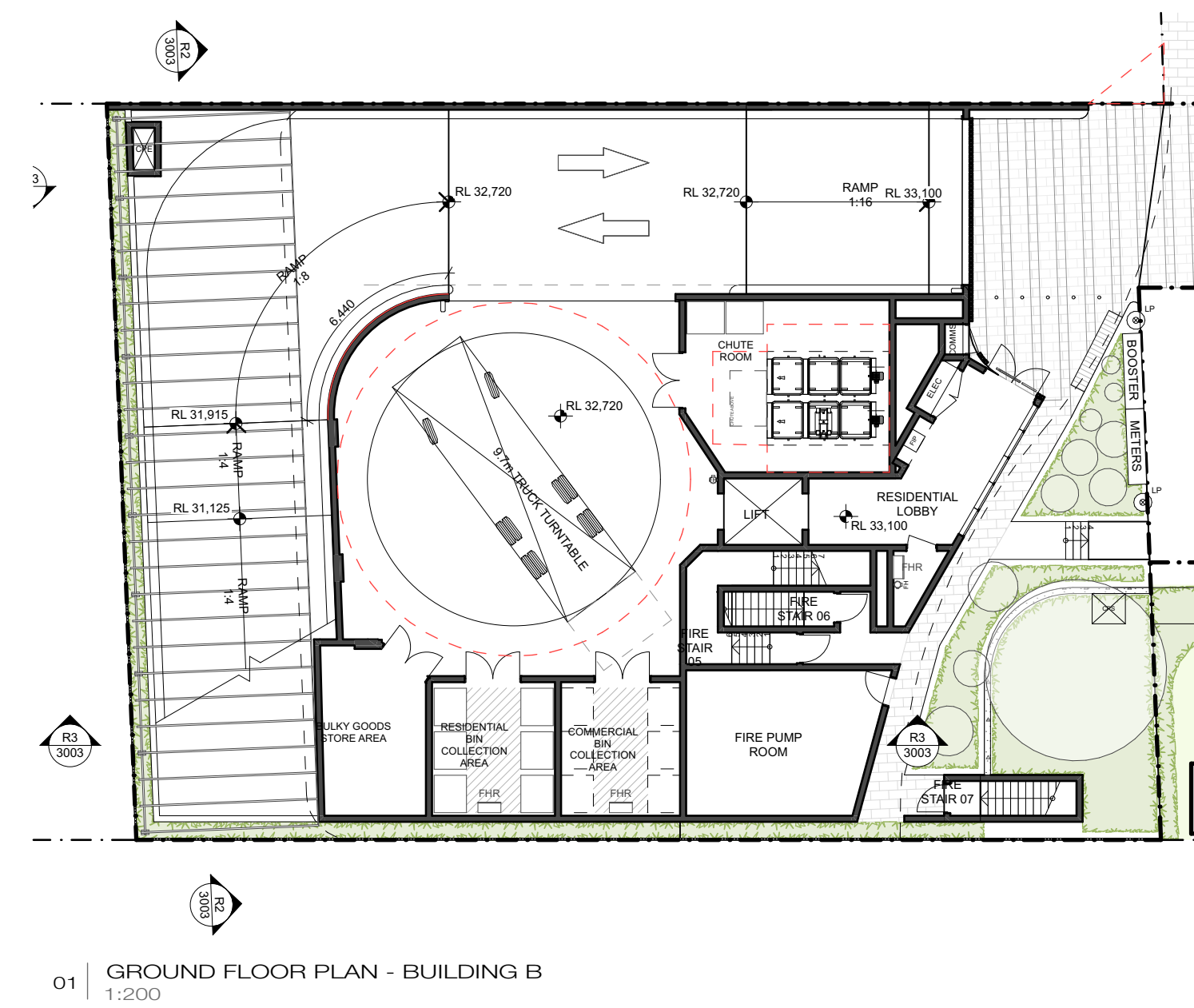
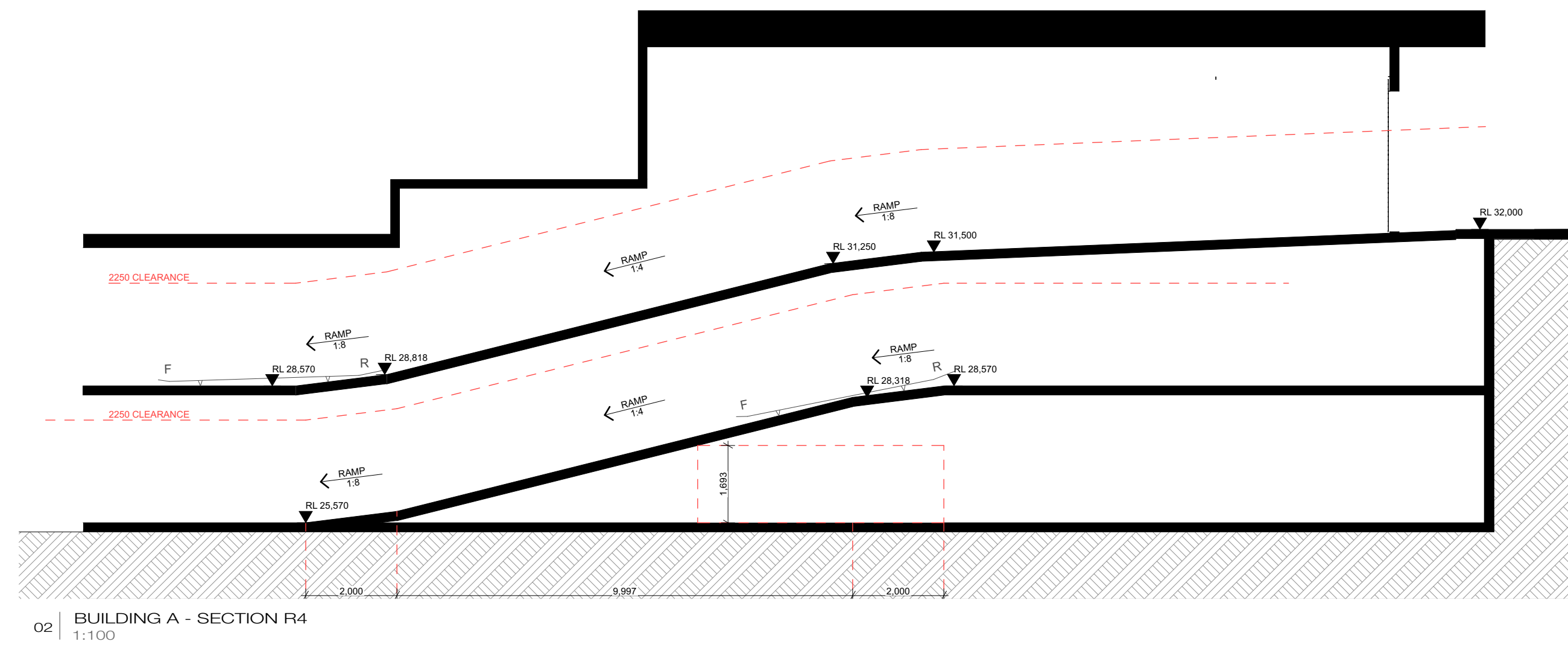
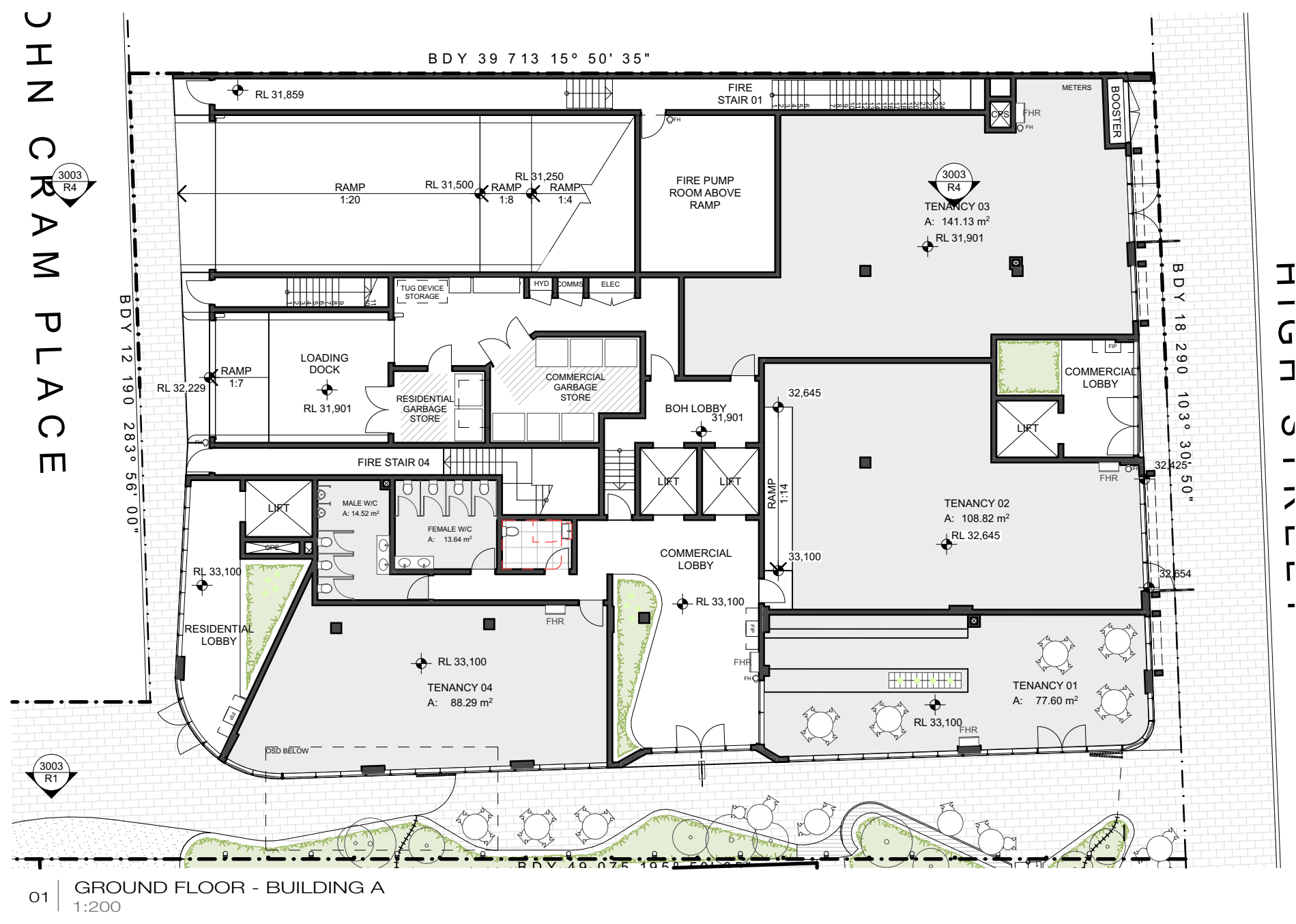
02 | SECTION D  
1:100



01 | SECTION E  
1:100



02 | SECTION F  
1:100



NOTES  
1. Formed dimensions take precedence over scaled drawings.  
2. Contractors to check and verify all levels before and throughout on site.  
3. All materials and workmanship to be in accordance with current written specifications, instructions, and standards and DCA codes.  
4. Confirming information to be brought to notice of the architect and confirmation sought before proceeding with any works.  
5. All drawings are not to scale unless otherwise stated.  
6. Refer to General notes page for general and administrative.

DISCIPLINES  
Architect: Colin & Andrea Henry  
Structural: DA-3003  
Mechanical: DA-3003  
Electrical: DA-3003  
Civil: DA-3003  
Landscape: DA-3003  
Interior: DA-3003  
Exterior: DA-3003  
Signage: DA-3003

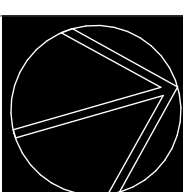
DESIGNER  
Colin & Andrea Henry

CLIENT  
Colin & Andrea Henry

PROJECT  
MIXED USE DEVELOPMENT  
SITE: 242 - 250 High Street, North Melbourne  
STAGE: CON 2 & 3 OF 3100  
REF: DA1008

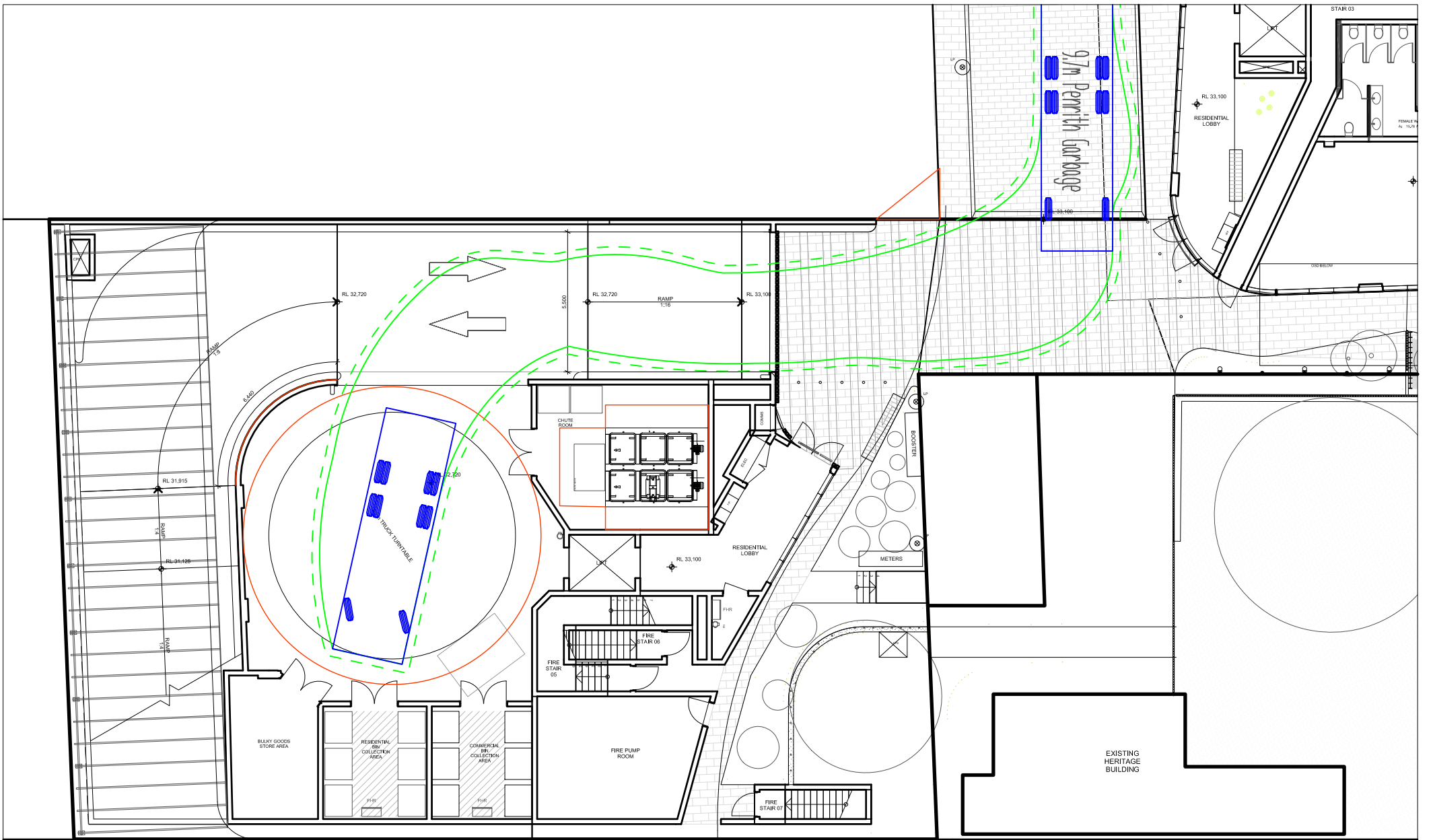
REVISION  
REVISION A ISSUE FOR CONSULTANT COORDINATION  
REVISION B ISSUE FOR FINAL COORDINATION  
REVISION C ISSUE FOR DEVELOPMENT APPLICATION

DRAWING  
DRIVEWAY SECTIONS 1  
DRAWING ISSUE  
DA-3003 C  
SCALE 1:100, 1:200 @ 2



**APPENDIX B**

**SWEPT TURNING PATHS**



VARGA TRAFFIC PLANNING Pty Ltd  
 ADN 58 071 752 537  
 20 Young Street  
 Neutral Bay, NSW 2089

Phone +61 2 9904 3294  
 PO Box 1688  
 Neutral Bay, NSW 2089  
 www.vargatrafic.com.au  
 Sydney, Australia

**PROJECT**  
 RESIDENTIAL DEVELOPMENT



**DRAWING TITLE**  
 9.7m Rigid Truck Entry  
 Swept Turning Path

**ADDRESS**  
 342-350 High Street,  
 Penrith

1:200 @ A4

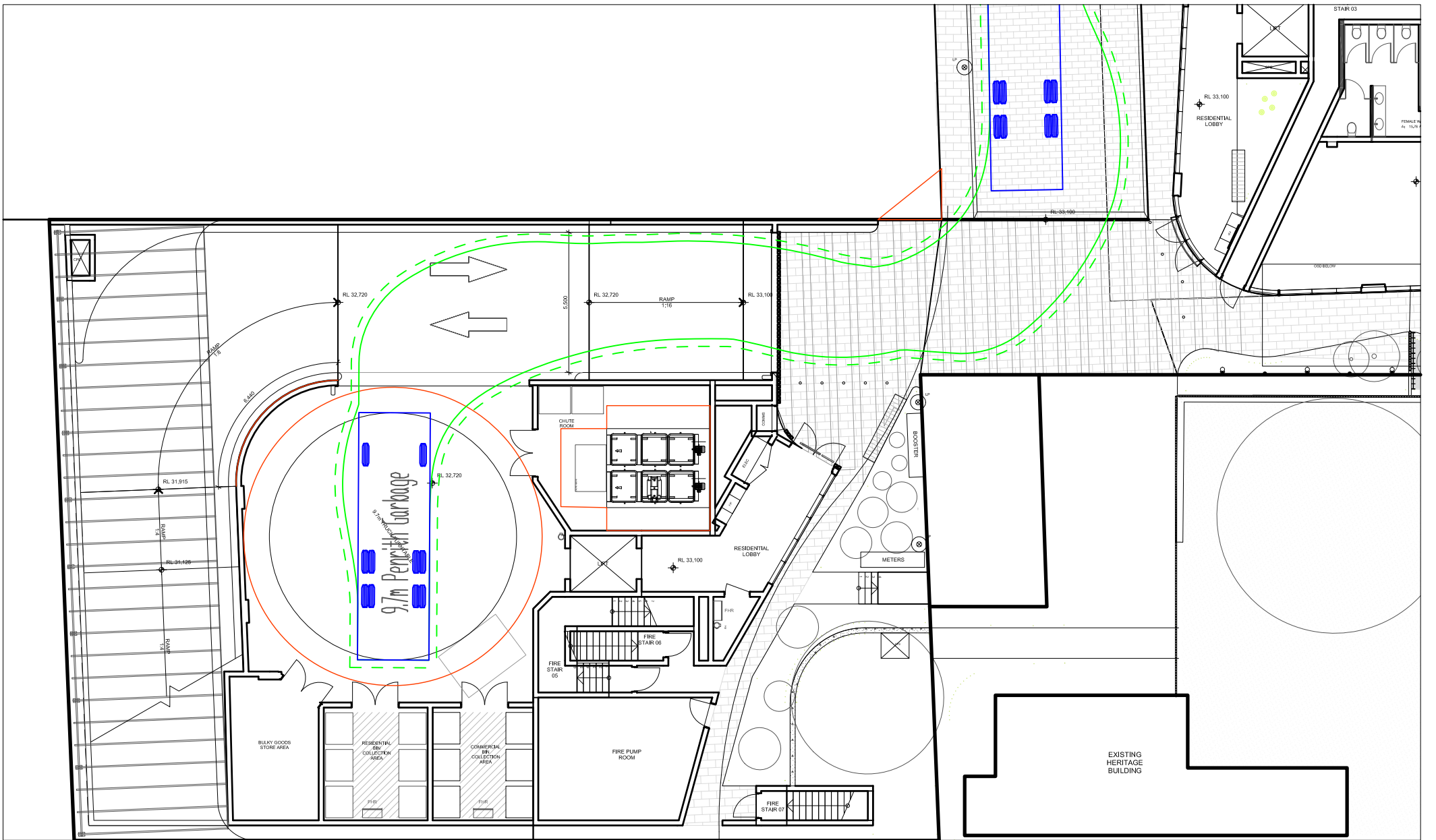
**DATE DRAWN**  
 2021-10-12

**PREPARED**  
 TN

**PROJECT NO.**  
 20401

**REVIEWED**  
 RV

**VARGA TRAFFIC PLANNING Pty Ltd**  
 Transport, Traffic and Parking Consultants



VARGA TRAFFIC PLANNING Pty Ltd  
 ADN 58 071 752 537  
 20 Young Street  
 Neutral Bay, NSW 2089

Phone +61 2 9904 3294  
 PO Box 1988  
 Neutral Bay, NSW 2089  
 www.vargatrafic.com.au  
 Sydney, Australia

**PROJECT**  
 RESIDENTIAL DEVELOPMENT



**DRAWING TITLE**  
 9.7m Rigid Truck Exit  
 Swept Turning Path

**ADDRESS**  
 342-350 High Street,  
 Penrith

**PROJECT NO.**  
 20401

**REVIEWED**  
 RV

**1:200 @ A4**

**DATE DRAWN**  
 2021-10-12

**PREPARED**  
 TN

**VARGA TRAFFIC PLANNING Pty Ltd**

**Transport, Traffic and Parking Consultants**