TRAFFIC IMPACT ASSESSMENT

5 Lauderdale Avenue, Fairlight

PREPARED FOR:
HPG Project Lauderdale Pty Ltd and COP Project Lauderdale Pty Ltd

REFERENCE:
0947r01v02

DATE:
29/10/2024

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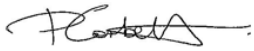
Prepared for: HPG Project Lauderdale Pty Ltd and COP Project Lauderdale Pty Ltd

ACN: 673 519 358 and 673 519 849

Reference: 0947r01v02

Date: 29/10/2024

Revision History

VERSION	DATE	PREPARED	REVIEWED	APPROVED	SIGNED
01	28/06/2024	Ben Midgley	Hayden Calvey	Paul Corbett	Original signed
02	29/10/2024	Ben Midgley	Hayden Calvey	Paul Corbett	

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1. Introduction

1.1. Overview

PDC Consultants has been commissioned by HPG Project Lauderdale Pty Ltd and COP Project Lauderdale Pty Ltd to undertake a traffic impact assessment of a Development Application (DA) relating to a residential development at 5 Lauderdale Avenue, Fairlight. Specifically, the DA proposes the demolition of the existing buildings and the construction of a residential development consisting of:

- Five three-bedroom residential units.
- Lower ground and basement level car parking providing a total of 11 car spaces.
- A combined entry and exit driveway onto Lauderdale Avenue.

Having regard for the above, it is evident that the development is not of a scale that requires referral of the DA to Transport for New South Wales (TfNSW), under Clause 2.122 of the State Environmental Planning Policy (Transport and Infrastructure) 2021.

The site falls within the Northern Beaches Council (Council) local government area (LGA), though consolidated planning controls have yet to come into effect. Accordingly, the proposed development has been assessed in accordance with Manly Development Control Plan 2013 (MDCP) and Manly Local Environmental Plan 2013 (MLEP).

1.2. Structure of this Report

This report documents the findings of our investigations in relation to the anticipated traffic and parking impacts of the proposed development and should be read in the context of the Statement of Environmental Effects (SEE), prepared separately. The remainder of this report is structured as follows:

- Section 2: Describes the site and existing traffic and parking conditions in the locality.
- Section 3: Describes the proposed development.
- Section 4: Assesses the parking requirements of the development.
- Section 5: Assesses the traffic impacts of the development.
- Section 6: Discusses the proposed access and internal design arrangements.
- Section 7: Presents the overall study conclusions.

1.3. References

In preparing this report, reference has been made to the following guidelines / standards:

- Manly Local Environment Plan 2013 (MLEP).
- Manly Development Control Plan 2013 (MDCP).
- State Environmental Planning Policy (Transport and Infrastructure) 2021 (SEPP T&I 2021).
- NSW Government Apartment Design Guide (ADG).
- Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area, 2013 (Integrated Public Transport Planning Guidelines 2013).
- Disability (Access to Premises – Buildings) Standards 2010 (Disability Standard 2010).
- Australian Standard 2890.1-2004, Part 1: Off-Street Car Parking (AS 2890.1).
- Australian Standard 2890.3-2015, Part 3: Bicycle Parking Facilities (AS 2890.3).
- Australian Standard 2890.6-2009, Part 6: Off-street parking for people with disabilities (AS 2890.6).
- RTA Guide to Traffic Generating Development 2002 (RTA Guide).
- RMS Technical Direction TDT 2013/04a - Guide to Traffic Generating Developments, Updated Traffic Surveys (TDT 2013/04a).

2. Existing Conditions

2.1. Location and Site

The subject site is located at 5 Lauderdale Avenue, Fairlight, being approximately 800 metres west of Manly Wharf and 9.0 kilometres northeast of the Sydney CBD. More specifically, the site is located on the southern side of Lauderdale Avenue between its intersections with Fairlight Crescent and Margaret Street.

The site is irregular in configuration with a total area of approximately 980 m^2. It has one street frontage, being Lauderdale Avenue to the north, having a length of approximately 21 metres. The eastern and western boundaries border neighbouring medium density residential developments, with the southern boundary bordering public recreation land and Fairlight Beach.

The site is formally identified as Lot A of DP24923 and currently contains a residential dwelling. Vehicle access is currently provided via a 3.0-metre-wide access onto Lauderdale Avenue at the site's northwest corner, serving a single enclosed garage.

Figure 1 and **Figure 2** provide an appreciation of the site's location in both a local and board context, respectively.

2.2. Road Network

The road hierarchy in the vicinity of the site is shown by **Figure 1**, with the following roads considered noteworthy:

- **Sydney Road**: forms part of a classified state road (MR 159). It generally runs in an east—west direction between Belgrave Street in the east and Frenchs Forest Road in the west. Near the site it is subject to 60 km/h speed zoning restrictions and accommodates one lane of traffic in each direction within a 13-metre undivided carriageway. Near the site, unrestricted parallel parking is permitted along both kerbsides.
- **Condamine Street**: forms part of a classified state road (MR 164 and SR 2112). It runs in a north—south direction intersecting Pittwater Road in the north and Ernest Street in the south. It is subject to 60 km/h speed zoning restrictions and accommodates one to two lanes of traffic in both directions. Near the site, unrestricted parallel parking is permitted along both kerbsides.
- **Lauderdale Avenue**: a local road that runs in an east—west direction between The Crescent in the east and Boyle Street in the west. It is subject to 50 km/h speed zoning restrictions and carries one lane of traffic in each direction. It permits unrestricted parallel parking along its northern kerbside, while the southern kerbside is subject to 'No Parking' restrictions.

Figure 1: Site Plan

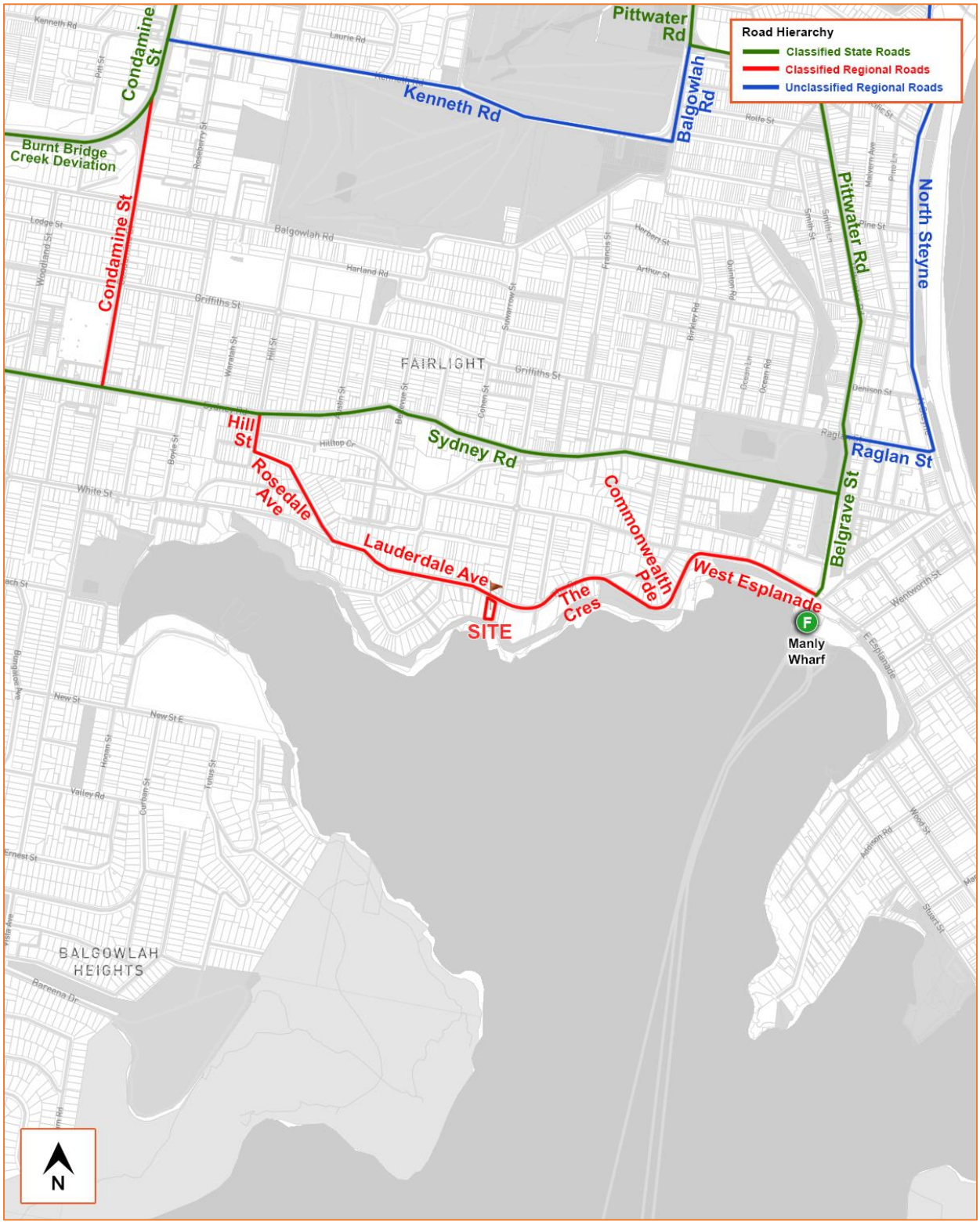


Figure 2: Location and Road Hierarchy Plan

2.3. Public and Active Transport

2.3.1. Bus Services

The Integrated Public Transport Planning Guidelines 2013 states that the walking catchment for metropolitan bus services includes all areas within a 400-metre radius of a bus stop. As can be seen from **Figure 3**, bus stops are provided on both sides of Lauderdale Avenue within 50 metres of the site, with further bus stops available along Sydney Road to the north. **Figure 3** also shows that several additional bus stops and services are accessible within 800 metres of the site.

Table 1 shows the notable town centres that are accessible via these bus services, and the average service headways during peak and off-peak periods.

Table 1: Bus Services

ROUTE NO.	ROUTE (TO / FROM)	ROUTE DESCRIPTION	AVERAGE HEADWAY
141	Austlink to Manly	Via Belrose, Frenchs Forest, Balgowlah, Fairlight	Weekdays: 1 hour Weekends: 1 hour
142	Allambie Heights to Manly	Via Manly Vale, Fairlight	Weekdays: 1 hour Weekends: 1 hour
144	Manly to Chatswood	Via Fairlight, Balgowlah, Crows Nest	Weekdays: 10 minutes Weekends: 10 minutes
144N	Manly to North Sydney (Night Service)	Via Fairlight, Balgowlah, Cremorne	Weekdays: 7 Services only Weekends: 7 Services only on Saturday / 4 Services only on Sunday
150X	Manly to Milsons Point (Express Service)	Via Fairlight, Balgowlah, Cremorne, Lavender Bay	Weekdays: 10 minutes Weekends: No Services
161	Manly to North Head (Loop Service)	-	Weekdays: 20 minutes Weekends: 30 minutes
162	Seaforth to Manly	Via Balgowlah, Clontarf	Weekdays: 1 hour Weekends: 1 hour
166	Frenchs Forest to Manly	Via Beacon Hill, Narraweena, Dee Why, North Curl Curl, Curl Curl, Freshwater, Queenscliff	Weekdays: 20 minutes Weekends: 20 minutes
167	Warringah Mall to Manly	Via Brookvale, Freshwater, Curl Curl, Queenscliff	Weekdays: 20 minutes Weekends: 20 minutes
170X	Manly to City Wynyard (Express Service)	Via Fairlight, Balgowlah, Milsons Point, Dawes Point	Weekdays: 20 minutes Weekends: No Services
171X	Balgowlah to City Wynyard (Express Service)	Via Balgowlah Heights, Clontarf, Milsons Point, Dawes Point	Weekdays: 4 Services only Weekends: No Services

2.3.2. Ferry Services

The Integrated Public Transport Planning Guidelines 2013 states that the walking catchment for metropolitan ferry wharves includes all areas within an 800-metre radius of a wharf. As can be seen from **Figure 3**, Manly Wharf is located around 800 metres from the site and hence falls within the walking catchment, with residents and visitors of the site expected to use ferry services for travel to and from the site.

Table 2 shows the notable centres that are accessible via the F9 Watsons Bay route along with average service headways.

Table 2: Ferry Services

ROUTE NO.	ROUTE DESCRIPTION	AVERAGE HEADWAY
F1	Manly Wharf to Circular Quay	Weekdays: 20 minutes Weekends: 30 minutes
Manly Fast Ferry	Manly Wharf to Circular Quay	Weekdays: 10 minutes peak / 20 minutes off-peak Weekends: 20 minutes

2.3.3. Cycle Network

Figure 3 shows that the site has excellent access to the local bicycle network, with an off-road shared path provided along the site's frontage on the southern side of Lauderdale Avenue. This shared path provides direct access to Manly Wharf and town centre to the east and neighbouring suburbs to the west, and is supported by the surrounding nexus of low-speed residential streets.

2.4. Existing Trip Generation

As discussed in Section 2.1 of this report, the site currently accommodates a residential dwelling. TDT 2013/04a recommends application of a peak period traffic generation rates of 0.95 and 0.99 vehicle trips per dwelling per hour in weekday AM and PM commuter peak periods, respectively. Adoption of these rates to the existing site results in the following estimated existing traffic generation:

- 1 vehicle trip / hour (0 in, 1 out), during the AM peak period.
- 1 vehicle trip / hour (1 in, 0 out), during the PM peak period.

The above assumes a 20% inbound and 80% outbound distribution during the AM peak period noting that residents would typically depart the site for work in the morning, and vice versa for the weekday PM peak period.

Notwithstanding, the most relevant use of the above is to determine the net change in traffic generation resulting from the proposed residential flat building development, as is discussed in Section 5 of this report.

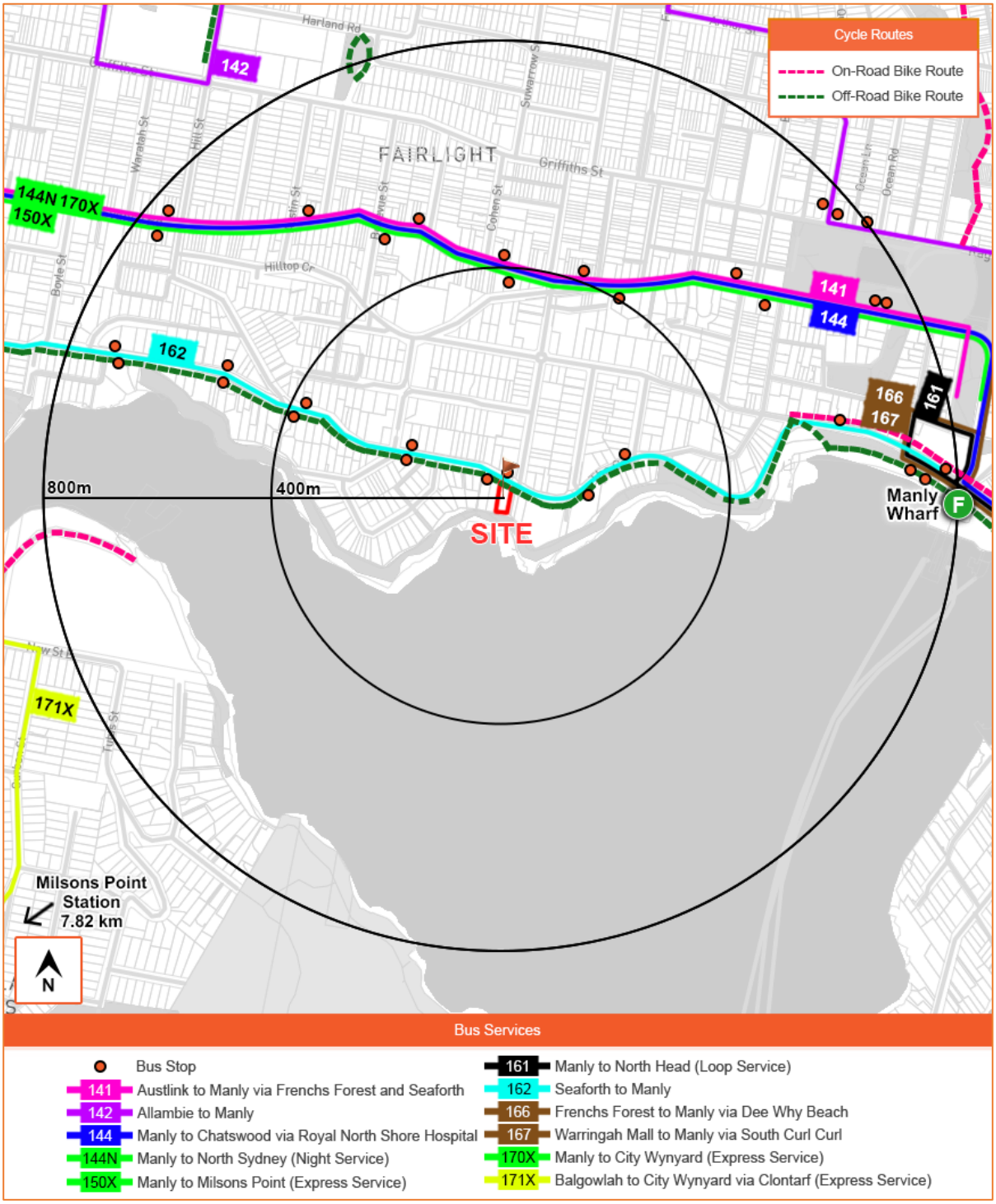


Figure 3: Public & Active Transport Services

3. Proposed Development

A detailed description of the proposed development for which approval is now sought, is outlined in the SEE prepared separately. In summary, the DA proposes the demolition of the existing buildings and the construction of a residential development consisting of:

- Five three-bedroom residential units.
- Lower ground and basement level car parking providing a total of 11 car spaces.
- A combined entry and exit driveway onto Lauderdale Avenue.

The parking and traffic implications arising from the proposed development are discussed in Sections 4 and 5 respectively. A copy of the relevant architectural drawings is provided as Appendix A.

4. Parking Requirements

4.1. Car Parking

MDCP stipulates car parking rates for residential units as outlined in **Table 3**, which also summarises the proposed provision in response. MDCP requires that car parking calculations resulting in fractions be rounded up.

Table 3: Car Parking Requirements

TYPE	NO.	DCP PARKING RATE	REQUIREMENT	PROVIDED
Residential Units (3+ Beds)	5	1.5 spaces / unit	8	10
Visitor	5	0.25 spaces / unit	2	1
		TOTAL	**10**	**11**

It is evident from **Table 3** that a total of 10 car spaces are required under MDCP, comprising a minimum of eight resident car spaces and two visitor spaces. In response, the proposed development provides 10 resident car spaces and one visitor space.

The proposed residential car parking provision therefore exceeds the minimum requirements of MDCP but the visitor parking provision is deficient by one space. This is considered appropriate in the circumstances given the site would be accessed via a car lift, which is generally more suitable for use by regular users of the car park as opposed to less frequent visitors who may be less familiar with its operations.

The car parking calculation for visitors equated to 1.25 spaces, which if rounded to the nearest whole number would round to one space. As discussed in Section 2.3, the site is excellently served by public and active transport which would enable travel by visitors to and from the site by modes other than private car.

Accordingly, the shortfall of one visitor space at the site is considered acceptable.

4.2. Accessible Car Parking

Consultation with the Applicant's access consultant has confirmed that two of the five units are adaptable and accordingly that two accessible car spaces are required. the development provides two accessible car spaces, and this is therefore considered appropriate.

4.3. Motorcycle Parking

The MDCP does not stipulate a rate for motorcycle parking at residential developments and as such, no motorcycle parking spaces are provided.

4.4. Bicycle Parking

The MDCP requires that bicycle parking be provided at a rate of one stand for every three car parking spaces, resulting in a requirement for four bicycle spaces. In response, the development provides space for four bicycle spaces via storage units in the car parking levels which would be accessible via either car or person lifts, and this provision is considered acceptable.

4.5. Service Vehicle Parking & Waste Collection

The MDCP does not specify a rate for the provision of service vehicle parking. In any event, given the use and moderate scale of the proposed development, it is expected that it would generate a minimal demand for service vehicle parking. Accordingly, it is considered acceptable that the development does not provide any on-site service vehicle parking, with any minor and infrequent demands to be accommodated either within the on-site visitor parking space or available parallel car parking spaces provided along the nearby street frontages.

Additionally, given the scale of the site, it is considered appropriate that the waste collection of the development be undertaken on-street along. To facilitate this, an on-site caretaker shall be responsible for transferring bins from the bin storage area to the kerbside prior to collection being undertaken. The caretaker shall then promptly return the bins to the bin storage area following collection. This arrangement is considered acceptable and will ensure that waste can be collected safely and efficiently.

The proposed servicing and waste collection arrangements are consistent with the existing development and neighbouring developments which are of a similar scale and nature and are therefore considered appropriate.

5. Traffic Impacts

The proposed development consists of five residential units and is thus categorised as a medium-density development by the RTA Guide. The RTA Guide recommends application of a peak period traffic generation rate ranging from 0.4 to 0.65 vehicle trips per hour, depending upon the number of bedrooms in the unit. Adopting the upper bound of this range, given all units propose three bedrooms, results in the following estimated existing traffic generation:

- 3 vehicle trips / hour (1 in, 2 out), during the AM peak period.
- 3 vehicle trips / hour (2 in, 1 out), during the PM peak period.

The above assumes a 20% inbound and 80% outbound distribution during the AM peak period noting that residents would typically depart the site for work in the morning, and vice versa for the weekday PM peak period.

This is not however a net increase as it does not take into consideration trips generated by the existing development. The net increase in trips would be as follows:

- 2 vehicle trips / hour (1 in, 1 out), during the AM peak period.
- 2 vehicle trips / hour (1 in, 1 out), during the PM peak period.

The anticipated net increase traffic generation of the proposed development is therefore small at two vehicles per hour, or one vehicle every 30 minutes or so. There will therefore be no material traffic impacts on the nearby local streets and accordingly, no external improvements will be required to facilitate the development. The traffic impacts of the proposed development are therefore considered acceptable.

6. Design Aspects

6.1. Access

The proposed vehicular access arrangements at the development have been designed in accordance with the relevant width, grade, and visibility requirements of the respective AS 2890 guidelines and are considered satisfactory.

With 11 car parking spaces of User Class 1A, the proposed development requires a Category 1 Driveway under Table 3.1 of AS 2890.1, being a combined entry and exit driveway of width 3.0 metres to 5.5 metres. In response, the development proposes a combined entry and exit driveway within this range and therefore satisfies the requirements under AS 2890.1.

Vehicular access to car parking areas on the site would be via a mechanical car lift, which has been designed with dimensions sufficient to accommodate a B99 vehicle. The car lift would be configured to remain at street level when not in use, to minimise delay of vehicles entering the site.

The access driveway internal to the property boundary has been designed to facilitate two-way passing of vehicles, should a vehicle entering the site need to wait at street level whilst another vehicle is exiting the site. This ensures that entering vehicles waiting to enter the site are not required to queue on-street or across the shared path.

The proposed arrangements have also been assessed using swept path analysis, with the results included in Appendix B for reference. These results confirm compliance with AS 2890.1 and that the proposed access arrangements will operate safely and efficiently.

6.2. Internal Design

The proposed internal traffic circulation and parking arrangements comply with the relevant requirements of AS 2890, including the proposed:

- Parking space dimensions, grades, aisle widths, and blind aisle extensions, in accordance with Clause 2.4 of AS 2890.1.
- Internal roadway widths and grades, in accordance with Clause 2.5 of AS 2890.1.
- Design vehicle envelope required for clearance to columns, walls, and obstructions, in accordance with Clause 5.2 of AS 2890.1.
- Headroom and ground clearances, in accordance with Clause 5.3 of AS 2890.1.
- Bicycle parking arrangements, in accordance with AS 2890.3.

Critical movements have been assessed by swept path analysis where necessary, and the parking and circulation areas of the proposed development are considered satisfactory. Any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.

6.3. Servicing and Loading

The proposed servicing and loading requirements are presented in Section 4.5, with the internal traffic circulation and parking areas designed against the relevant requirements of AS 2890.1 to satisfactorily cater for the largest service vehicle expected to enter the site, being a B99 vehicle. The proposed arrangements have been designed to ensure that any service vehicle using the site can enter and exit the site in a forward direction.

7. Conclusions

In summary:

- PDC Consultants has been commissioned by HPG Project Lauderdale Pty Ltd and COP Project Lauderdale Pty Ltd to undertake a traffic impact assessment of a DA relating to a residential development at 5 Lauderdale Avenue, Fairlight. Specifically, the DA proposes the demolition of the existing buildings and the construction of a residential development consisting of:
  - Five three-bedroom residential units.
  - Lower ground and basement level car parking providing a total of 11 car spaces.
  - A combined entry and exit driveway onto Lauderdale Avenue.
- The traffic generation assessment confirms that the development will generate a net increase of two vehicle trips per hour. This increase is considered immaterial and will therefore have no net impact on the performance of nearby local streets or intersections.
- The MDCP requires the development to provide a maximum of 10 car spaces. In response, the development provides a total of 11 car spaces and complies with the residential provision but is one short on the visitor provision. This is considered supportable to avoid the need for visitors to use the proposed car lift and given the availability of public and active transport options near the site.
- The proposed access and internal parking arrangements generally comply with the relevant requirements of AS 2890. Any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.

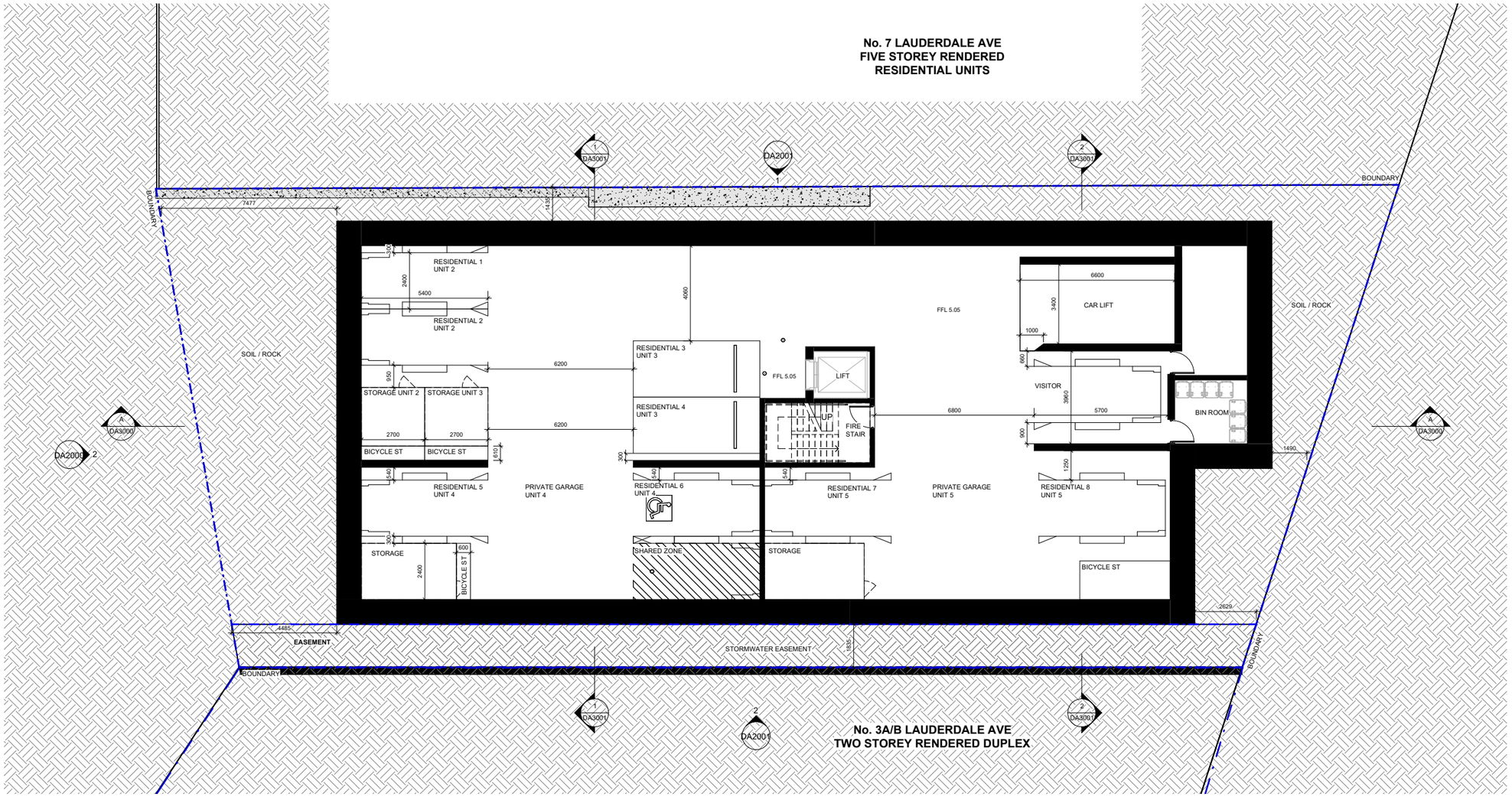
It is therefore concluded that the proposed development is supportable on traffic planning grounds.

Appendix A

GENERAL NOTES

DO NOT SCALE FROM DRAWINGS. USE FIGURED DIMENSIONS ONLY. ENSURE THAT THE DRAWINGS USED CARRY THE LATEST REVISION NO. READ IN CONJUNCTION WITH CONSULTANTS' DRAWINGS, SPECIFICATIONS AND REPORTS - REFER CONTRACT DRAWING LIST.

- ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCEMENT OF WORK.
- ALL DISCREPANCIES TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- LARGER SCALE DRAWINGS AND WRITTEN DIMENSIONS TAKE PRECEDENCE.
- ENSURE ALL WORKS COMPLY WITH THE PROVISIONS OF THE CURRENT NCC.
- ALL LEVELS TO AHD.



1 BASEMENT

1 : 100

2/40 East Esplanade
Manly, NSW 2095 Australia
Phone: 02 8385 9759

Nominated Architect:
Bridie Gough 8280
admin@platformarchitects.com.au

REV.	DATE	DESCRIPTION	BY
DA1	25/10/24	Issued for DA Submission	JF

PRELIMINARY

PROJECT
LAF
5 Lauderdale Ave,
Fairlight

CLIENT
HPG project Lauderdale Pty Ltd and COP Project Lauderdale Pty Ltd

DRAWING TITLE
Basement

PROJECT No 28

SCALE	STATUS	NUMBER	REVISION
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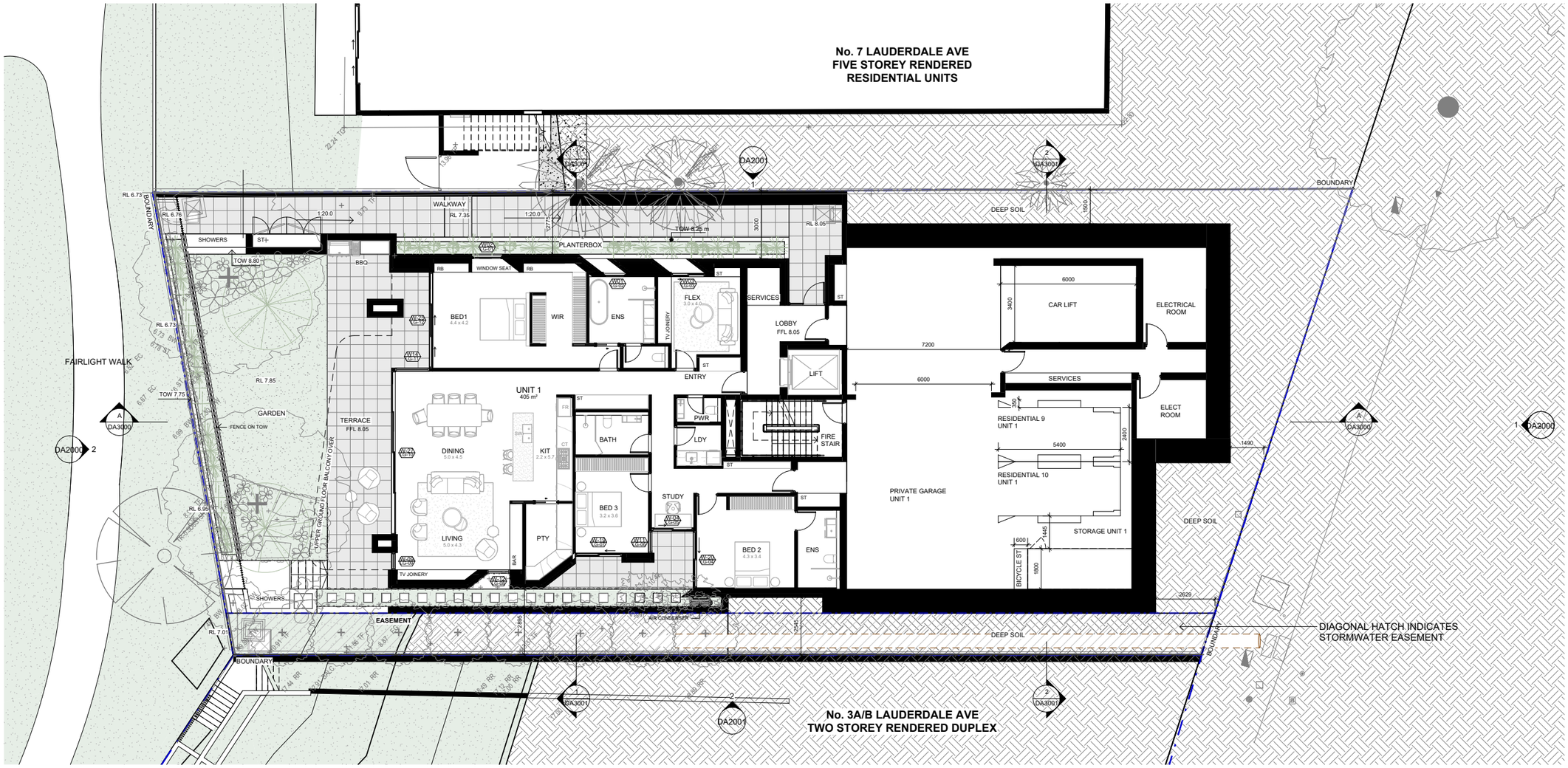

1 LOWER GROUND FLOOR
1 : 100

GENERAL NOTES

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REV	DATE	DESCRIPTION	BY
DA1	25/10/24	Issued for DA Submission	JF

PRELIMINARY

PROJECT
LAF
5 Lauderdale Ave,
Fairlight

CLIENT
HPG project Lauderdale Pty Ltd and COP Project Lauderdale Pty Ltd

DRAWING TITLE
Lower Ground Floor

PROJECT No 28

SCALE	STATUS	NUMBER	REVISION
1 : 100@A1	DA	DA1001	DA1

GENERAL NOTES

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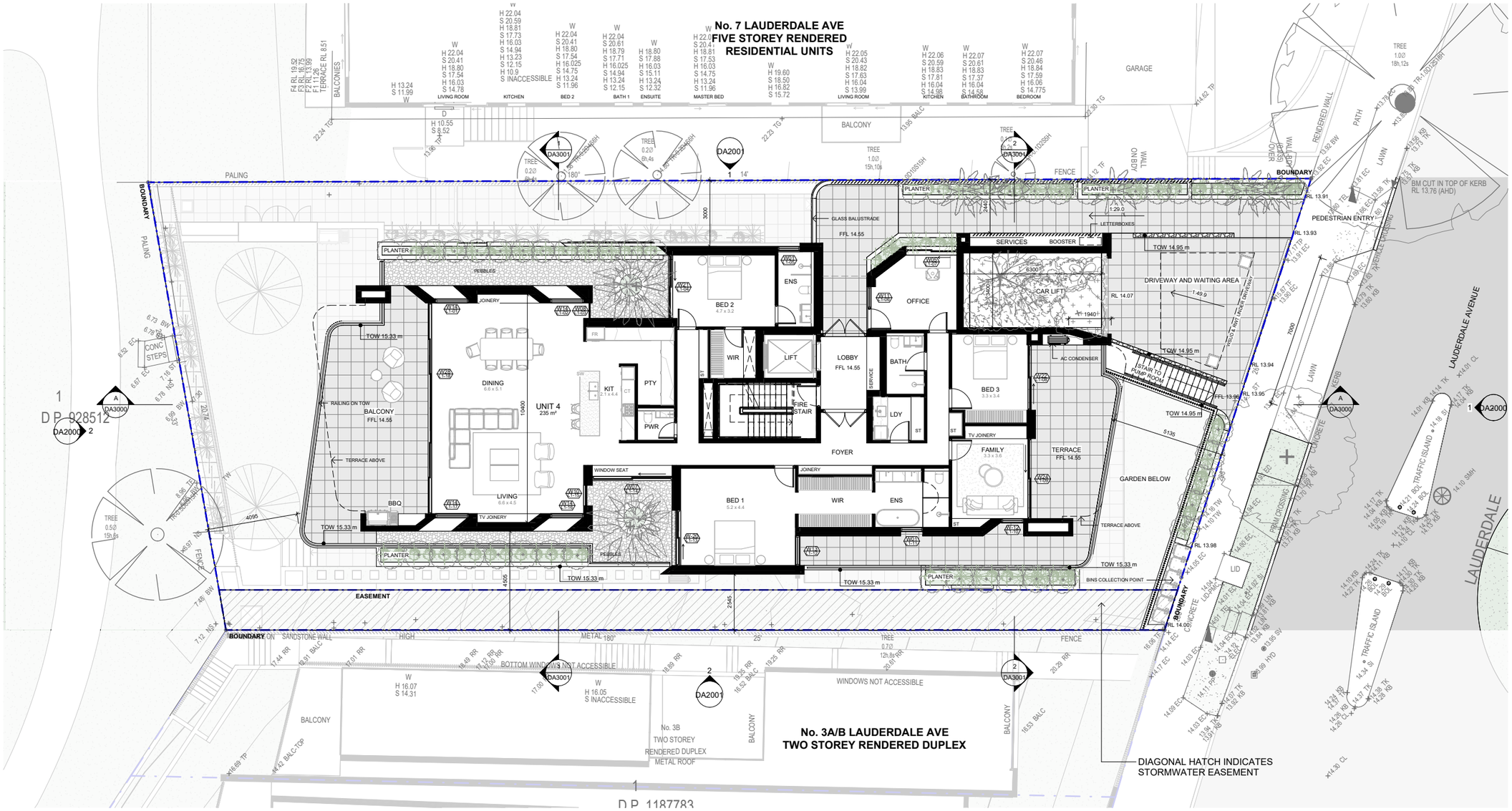

1 LEVEL 1
1 : 100

PRELIMINARY

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REV	DATE	DESCRIPTION	BY
DA1	25/10/24	Issued for DA Submission	JF

PROJECT
LAF
5 Lauderdale Ave,
Fairlight

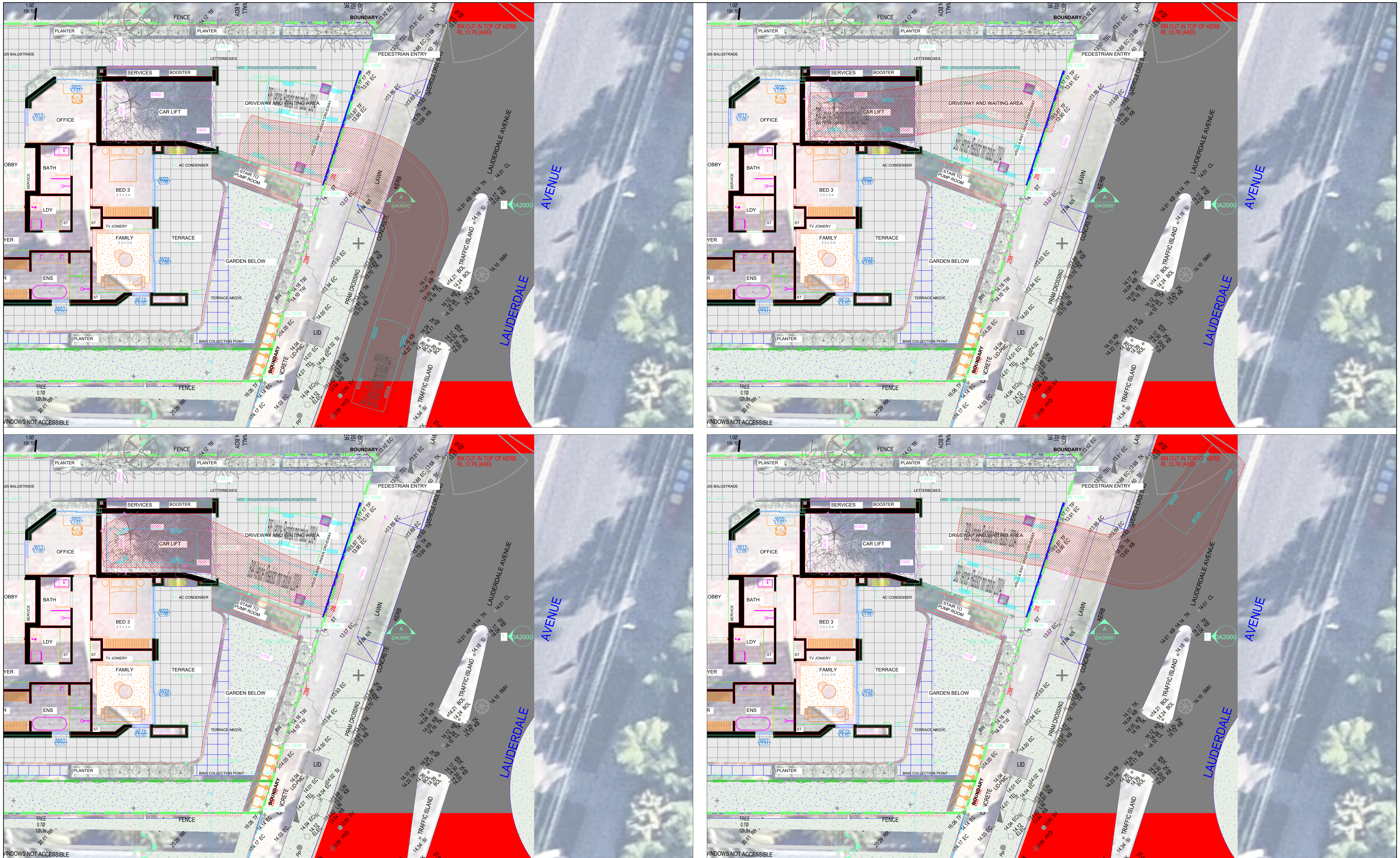
CLIENT
HPG project Lauderdale Pty Ltd and COP Project Lauderdale Pty Ltd

DRAWING TITLE
Level 1

PROJECT No 28

SCALE	STATUS	NUMBER	REVISION
1 : 100@A1	DA	DA1003	DA1

Appendix B



Drawing Prepared By	North	Swept Path Key	Project	Drawing Title	Drawing No.	Revision No.
pdc CONSULTANTS		Vehicle Wheel Path Vehicle Body Envelope 300mm Vehicle Clearance	5 Lauderdale Avenue, Fairlight	Swept Path Analysis Level 1 Vehicle Access B99 Design Vehicle Passing B85 Vehicle	001	-
					Drawn By BM	**Date** 29/10/2024
			Project No 0947	**Sheet Status** NOT FOR CONSTRUCTION	**Scale** 1:200 @ A3 0m 2 4 6 8	

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