TRAFFIC AND PARKING IMPACT ASSESSMENT OF A PROPOSED AFFORDABLE RENTAL HOUSING DEVELOPMENT

2-4 Anzac Avenue and 945-947 Princes Highway in Engadine

Traffic and Parking Impact Assessment Report

Prepared for: Gitanes Property Group Pty Ltd

N1715939N (Version 1a)

June 2017

1. INTRODUCTION

Motion Traffic Engineering was commissioned by Gitanes Property Group Pty Ltd to undertake a traffic and parking impact assessment of proposed affordable rental housing development at 2-4 Anzac Avenue, 945-947 Princes Highway in Engadine. The development site has frontage to Anzac Avenue and Princes Highway. Currently the site is occupied by 4 residential dwellings.

The proposed development will have vehicle access and egress via Anzac Avenue.

This traffic report focuses on the proposed development and changes in car usage and car park utilisation and additional trips from the proposed development.

In the course of preparing this assessment, the subject site and its environs have been inspected, plans of the development examined, and all relevant traffic and parking data collected and analysed.

2. BACKGROUND AND EXISTING CONDITIONS OF THE PROPOSED LOCATION

2.1 Location and Land Use

The proposed affordable apartment development is located north-east of the Engadine town centre. The development site has frontage to Anzac Avenue and Princes Highway. Currently the site is occupied by 4 residential dwellings.

The nearby land uses are residential and commercial business.

Figures 1 show the location of the development site from the aerial perspective.

Figure 2 show the location of the development site from the street map perspective.

Figure 3 show photographs of the development site from both road frontages.

Figure 1: Location of the Subject Site on Aerial

Figure 2: Street Map of the Location of the Development Site

Figure 3a: Photograph of 2-4 Anzac Avenue in Engadine

Figure 3b: 945-947 Princes Highway in Engadine

2.2 Road Network

This section discusses the road network adjacent to the site.

Princes Highway is an arterial road with three lanes each way for traffic. On-street parking is not permitted on both sides of the road. The sign posted speed limit is 70km/hr. Figure 4 shows a photograph of Princess Highway.

Anzac Avenue is a local road with one lane each way for traffic. Unrestricted on-street parking is permitted on the southbound side of the road and is not permitted on the northbound side. The sign posted speed limit is 50km/hr. Figure 5 shows a photograph of Anzac Avenue.

Figure 4: Princes Highway looking north from Anzac Avenue

Figure 5: Anzac Avenue looking from Princes Avenue

2.3 Intersection Description

As part of the traffic impact assessment, the performance of a nearby intersection were surveyed and assessed:

- Priority intersection of Princes Highway with Anzac Avenue

External traffic travelling to and from the development will have to travel through this intersection

The priority intersection of Princes Highway with Anzac Avenue is a three-leg intersection. Right-turn movements from Anzac Avenue are not permitted.

The vehicles turning left from the Anzac Avenue to the Princess Highway do not have to give way to the traffic on the Princess Highway as there is slip lane for vehicles turning left onto Princes Highway which continues as a left lane on Princess Highway. The vehicles turning right from the Princess Highway (north-east approach) on to the Anzac Avenue must give way to the oncoming traffic.

Figure 4 shows the layout of the intersection using SIDRA – an industry standard intersection software. The number on the lane represents the length of short lanes in metres.

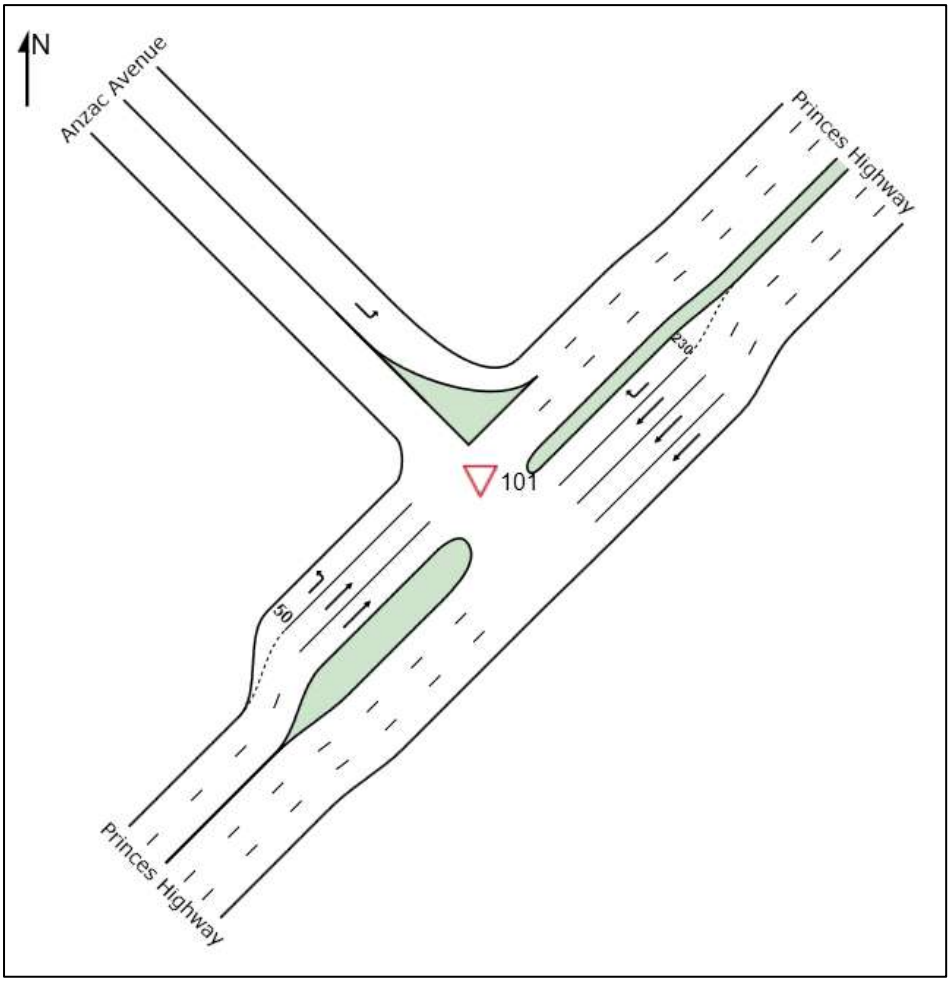


Figure 4: Priority Intersection Layout of Princes Highway with Anzac Avenue (SIDRA)

2.4 Existing Traffic Volumes

As part of the traffic assessment, traffic counts have been undertaken at the intersection for the weekday AM and PM peak periods. The AM peak hour was from 7:30am till 9am and the PM peak hour was from 5pm till 6pm.

Figure 5 and 6 presents the traffic volumes of vehicles for the weekday AM and PM peak hours respectively.

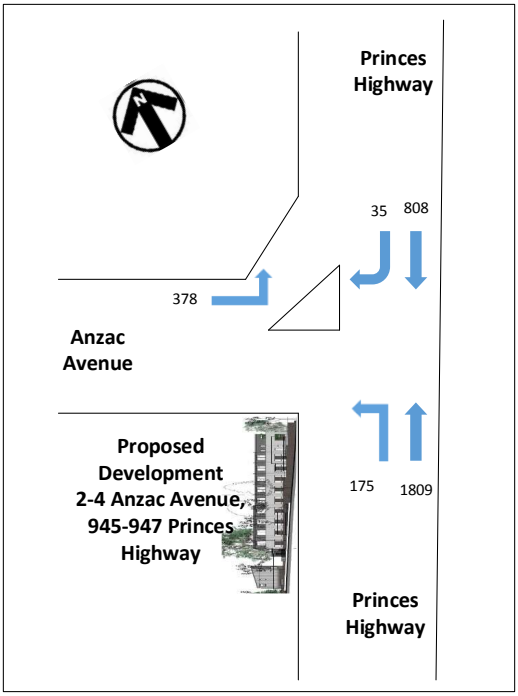


Figure 5: Existing Weekday Traffic Volumes AM Peak Hour

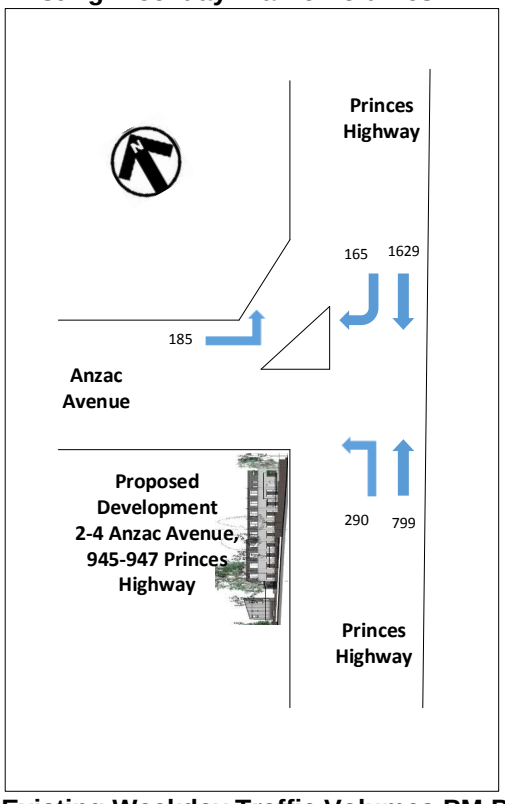


Figure 6: Existing Weekday Traffic Volumes PM Peak Hour

2.5 Intersection Assessment

An intersection assessment has been undertaken for the surveyed intersections.

The existing intersection operating performance was assessed using the SIDRA software package (version 6) to determine the Degree of Saturation (DS), Average Delay (AVD in seconds) and Level of Service (LoS) at each intersection. The SIDRA program provides Level of Service Criteria Tables for various intersection types. The key indicator of intersection performance is Level of Service, where results are placed on a continuum from 'A' to 'F', as shown in Table 1.

LoS	**Traffic Signal / Roundabout**	**Give Way / Stop Sign / T-Junction control**
A	Good operation	Good operation
B	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	Satisfactory	Satisfactory, but accident study required
D	Operating near capacity	Near capacity & accident study required
E	At capacity, at signals incidents will cause excessive delays.	At capacity, requires other control mode
F	Unsatisfactory and requires additional capacity, Roundabouts require other control mode	At capacity, requires other control mode

Table 1: Intersection Level of Service

The Average Vehicle Delay (AVD) provides a measure of the operational performance of an intersection as indicated below, which relates AVD to LOS. The AVD's should be taken as a guide only as longer delays could be tolerated in some locations (i.e. inner-city conditions) and on some roads (i.e. minor side street intersecting with a major arterial route). For traffic signals, the average delay over all movements should be taken. For roundabouts and priority control intersections (sign control) the critical movement for level of service assessment should be that movement with the highest average delay.

LoS	Average Delay per Vehicles (seconds/vehicle)
A	Less than 14
B	15 to 28
C	29 to 42
D	43 to 56
E	57 to 70
F	>70

Table 2: Intersection Average Delay (AVD)

The degree of saturation (DS) is another measure of the operational performance of individual intersections. For intersections controlled by traffic signals both queue length and delay increase rapidly as DS approaches 1. It is usual to attempt to keep DS to less than 0.9. Degrees of Saturation in the order of 0.7 generally represent satisfactory intersection operation. When DS exceed 0.9 queues can be anticipated.

Priority intersection of Princes Highway with Anzac Avenue

- The left turn movements have an acceptable LoS for both peak hours
- The right turn has a poor Level of Service in the AM Peak hour
- The right turn has a Level of Service B in the PM Peak hour
- There is spare capacity at this intersection

2.6 Public Parking Opportunities

There is limited, but available on-street unrestricted parking available on Anzac Avenue. There is also unrestricted on-street parking available on the nearby road, Nolan Avenue.

2.7 Public Transport

Engadine Station is approximately 600 metres away from the development site. The nearest bus stop to the development is 470 metres away. This stop is serviced by the 991, 992 and 993 bus routes. These routes provide users with transport to Sutherland Station and Miranda Westfield.

Overall the site has access to public transport. Figure 10 shows the public transport route.

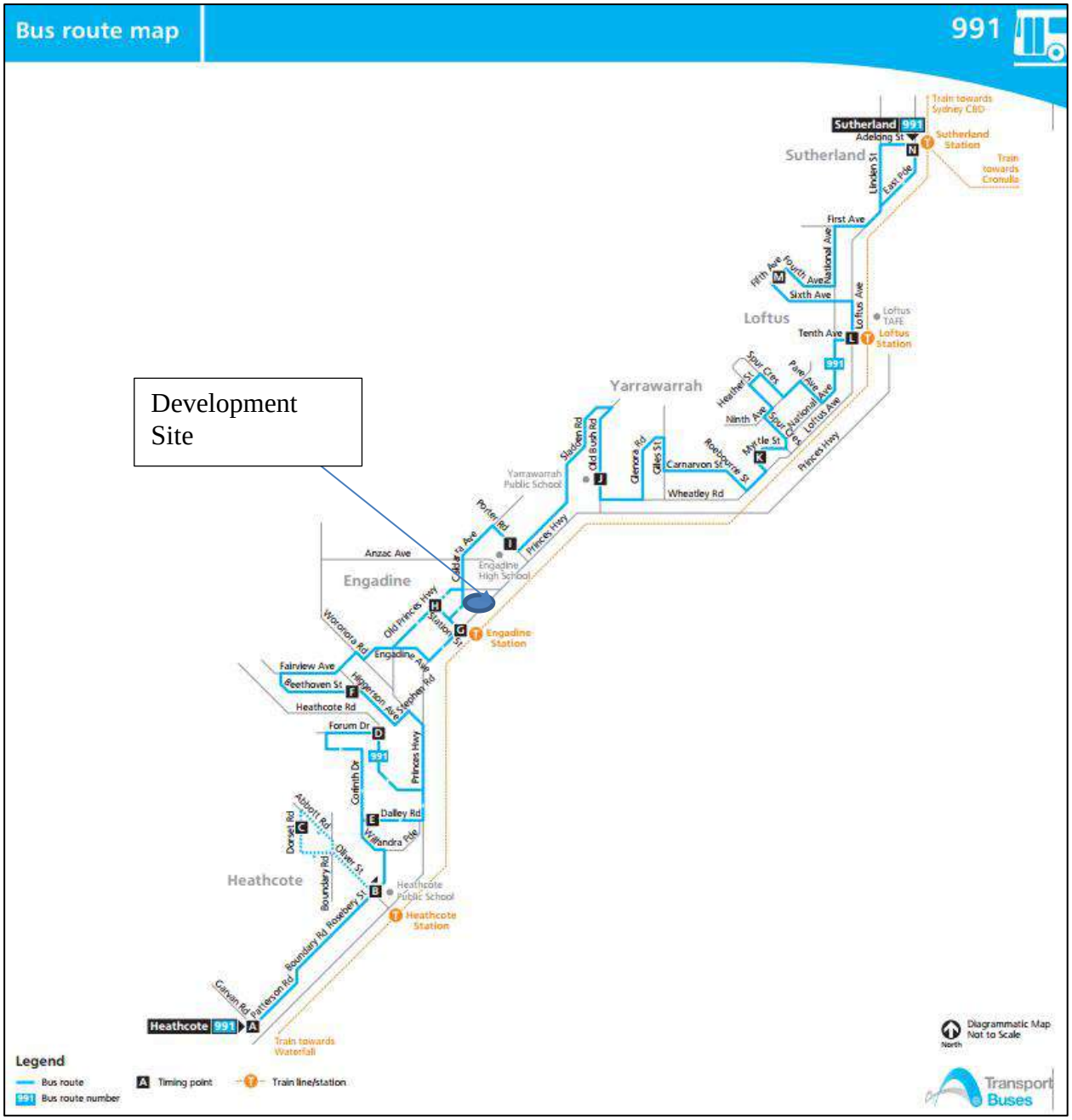


Figure 9: Public Transport Route

2.8 Conclusions on the Existing Conditions

Vehicle access and egress to the proposed development site is via Anzac Avenue.

The proposed development has limited but available unrestricted on-street parking available on its surrounding streets.

The nearby intersection overall performs well with sufficient spare capacity to accommodate additional traffic.

The site has access to public transport.

3. PROPOSED DEVELOPMENT

The land uses for the proposed development are as follows in the following:

Affordable Rental Housing

- 2 one bedroom
- 11 two-bed room unit (including apartments with study)
- 4 three-bed room unit
- 4 four-bed room unit
- Total of 21 apartments

Vehicle access and egress is via Anzac Avenue. Car parking is provided at the basement level. Forty car spaces are provided.

A full scaled plan of the proposed development is provided as part of the Development Application.

4. PARKING CONSIDERATIONS

4.1 Car Parking Assessment

Affordable Rental Housing

The car park requirement for Affordable housing is provided in the Affordable Rental Housing State Environment Planning Policy 65 as follows:

- 0.5 space per 1 bedroom
- 1 spaces per 2 bedroom
- 1.5 spaces per 3 bedroom
- Visitor parking is not required
    - 1 visitor space per 4 dwellings is required in Council's DCP (calculated in Table 4

Table 3 summarises the car parking requirements of the proposed development for affordable rental housing. The development complies with the car parking requirements of standard apartments.

Land Use	Number of units	Parking Rate	Spaces Required	Spaces Provided
Affordable Rental Housing	1 one bedroom unit	0.5	0.5	1
	2 two-bed room unit	1	2	2
	2 three-bed room unit	1.5	3	4
		Total	5.5	7

Table 3: Car Parking Requirements for standard Apartments

Standard Apartments

The car park requirement for standard apartments are as follows as set out in Council's DCP as follows:

- 1 space per 1 bedroom
- 1.5 spaces per 2 bed-room
- 2 spaces per 3 bed-room
- 2 spaces per 3 bed-room
- 1 visitor space per 4 dwellings

Table 4 summarises the car parking requirements of the proposed development. The development complies with the car parking requirements of standard apartments.

Number of units	Parking Rate	Spaces Required	Spaces Provided
1 one bedroom unit	1	1	27
9 two-bed room unit	1.5	13.5	
2 three-bed room unit	2	4	
4 four-bed room unit (when adaptable 1 bedroom becomes living room)	2	8	
Visitor	1 per 4 dwelling	6	6
Total		32.5	33

Table 4: Car Parking Requirements for standard Apartments

5. VEHICLE TRAFFIC IMPACT CONSIDERATIONS

5.1 Traffic Generation

The trip generation for residential landuses are provided in the RTA Guide to Trip Generating Developments.

Table 4 summarises the proposed trip generation for the respective land uses.

Table 5 summarises the trip distribution for the proposed and existing to obtain the net trip generation.

The proposed development will generate a moderate number of additional trips in the weekday AM peak hour.

Type	Number of Units / Dwellings	Trip Rate (Peak Hour)	Trips
Apartments	21	0.65 per dwelling	14.3
Total			15

Table 4: Trips Generated by the Mixed-Use Development Weekday AM/PM Peak Hours

Peak Hours	Origin	Destination	Total
AM	11	4	15
PM	4	11	15

Table 5: Distribution of Trips Generated by the Mixed-Use Development in the Weekday AM Peak Hours

5.2 Forecast Traffic Volumes

The following figure presents the existing and development traffic volumes for the AM and PM peak hour distributed onto the intersections with the development traffic.

The additional development traffic is in red for origin trips and blue for destination trips. The additional development traffic represents a small proportion of the existing traffic.

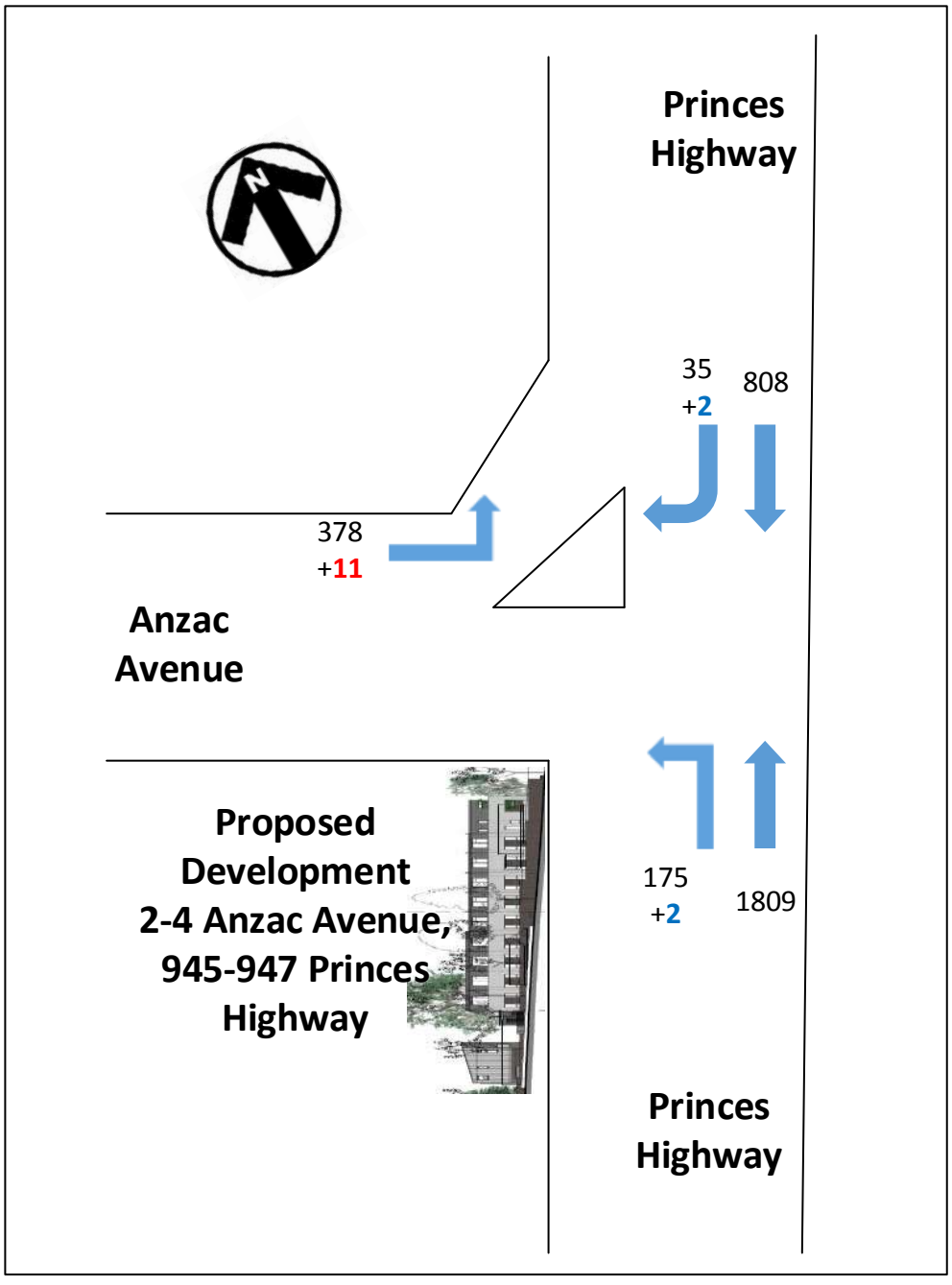


Figure 10: Existing Weekday AM Peak Hour Traffic Volumes with Development Traffic

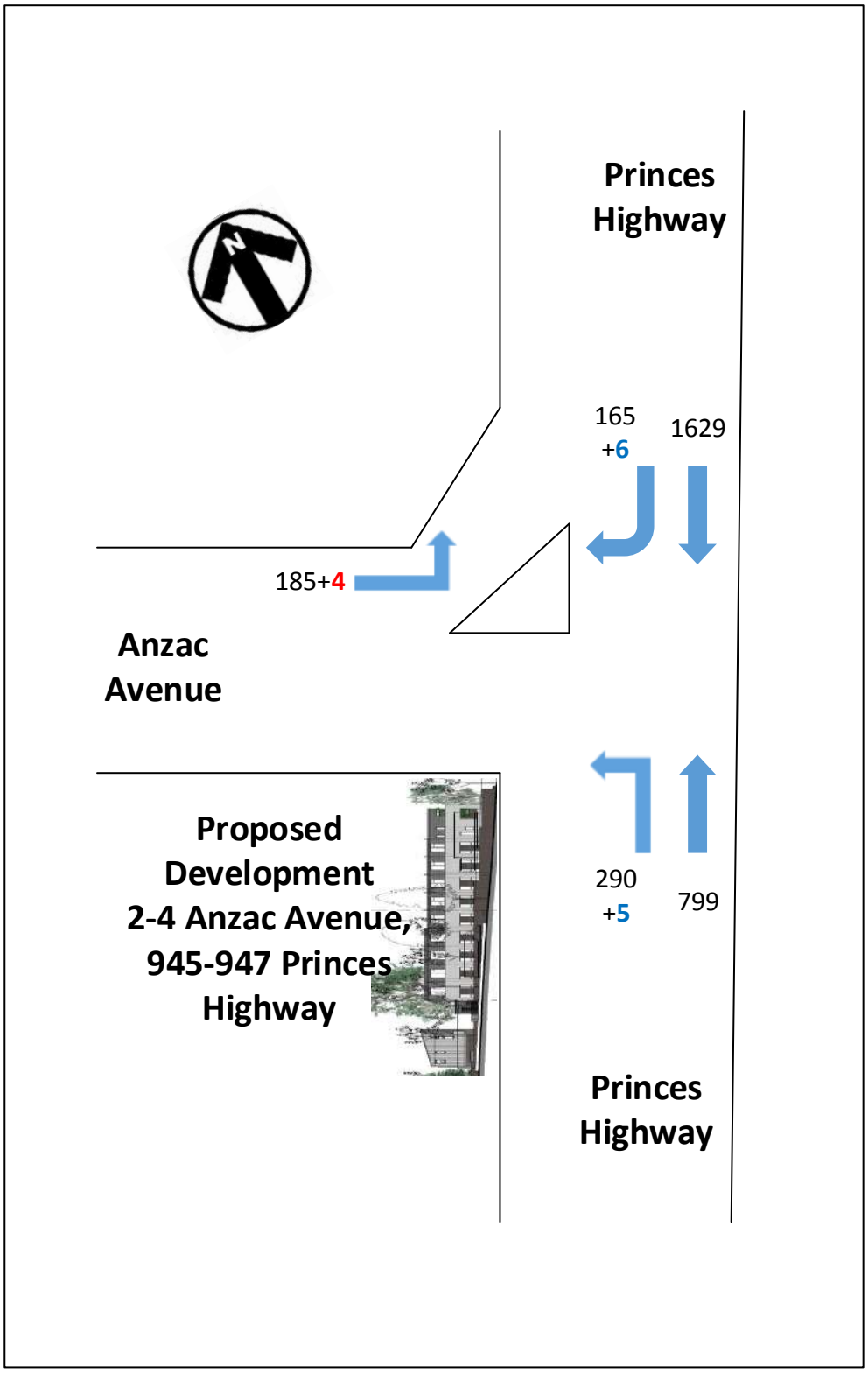


Figure 11: Existing Weekday PM Peak Hour Traffic Volumes with Development Traffic

5.3 Intersection Assessment

This section assesses the following intersections for the existing traffic with the development traffic. The results of the intersection assessment are as follows:

Priority intersection of Princes Highway with Anzac Avenue

- The left turn movements have an acceptable LoS for both peak hours
- The right turn has a poor Level of Service in the AM Peak hour
- The right turn has a Level of Service B in the PM Peak hour
- The additional trips do not change the LoS for any turn movement

The full SIDRA results are presented in Appendix B for the existing conditions with the development traffic. The full SIDRA results are presented in Appendix A for the existing conditions.

6. CONCLUSIONS

Based on the considerations presented in this report, it is considered that:

Parking

- The proposed development complies with Council's car parking requirements for tenants and visitors
- The site has excellent access to public transport

Traffic

- The proposed development is a moderate trip generator for the weekday AM and PM peak hour.
- The additional trips from the proposed development can be accommodated at the nearby intersection without noticeably affecting intersection performance, delays or queues.
- There are no traffic engineering reasons why a planning permit for the proposed mixed-use development at 2-4 Anzac Avenue, 945-947 Princes Highway in Engadine, should be refused.

APPENDIX A – SIDRA INTERSECTION EXISTING TRAFFIC CONDITIONS

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
NorthEast: Princes Highway											
5	T1	851	0.0	0.145	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
6	R2	37	0.0	0.996	263.6	LOS F	4.2	29.6	1.00	1.25	11.3
Approach		887	0.0	0.996	11.0	NA	4.2	29.6	0.04	0.05	50.8
NorthWest: Anzac Avenue											
7	L2	398	0.0	0.197	5.6	LOS A	0.0	0.0	0.00	0.53	54.9
Approach		398	0.0	0.197	5.6	NA	0.0	0.0	0.00	0.53	54.9
SouthWest: Princes Highway											
10	L2	184	0.0	0.099	5.6	LOS A	0.0	0.0	0.00	0.58	53.6
11	T1	1904	0.0	0.488	0.1	LOS A	0.0	0.0	0.00	0.00	59.8
Approach		2088	0.0	0.488	0.6	NA	0.0	0.0	0.00	0.05	59.2
All Vehicles		3374	0.0	0.996	3.9	NA	4.2	29.6	0.01	0.11	56.3

Table A1: Existing Priority Intersection Performance of Princes Highway with Anzac Avenue for the Weekday AM Peak Hour

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
NorthEast: Princes Highway											
5	T1	1715	0.0	0.293	0.0	LOS A	0.0	0.0	0.00	0.00	59.9
6	R2	174	0.0	0.788	39.9	LOS C	4.5	31.4	0.95	1.28	35.9
Approach		1888	0.0	0.788	3.7	NA	4.5	31.4	0.09	0.12	56.4
NorthWest: Anzac Avenue											
7	L2	195	0.0	0.096	5.6	LOS A	0.0	0.0	0.00	0.53	54.9
Approach		195	0.0	0.096	5.6	NA	0.0	0.0	0.00	0.53	54.9
SouthWest: Princes Highway											
10	L2	305	0.0	0.164	5.6	LOS A	0.0	0.0	0.00	0.58	53.6
11	T1	841	0.0	0.216	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		1146	0.0	0.216	1.5	NA	0.0	0.0	0.00	0.15	58.1
All Vehicles		3229	0.0	0.788	3.0	NA	4.5	31.4	0.05	0.15	56.9

Table A2: Existing Priority Intersection Performance of Princes Highway with Anzac Avenue for the Weekday PM Peak Hour

APPENDIX B

SIDRA Intersection Results for Existing Traffic Conditions with Residential Traffic

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
NorthEast: Princes Highway											
5	T1	851	0.0	0.145	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
6	R2	39	0.0	1.057	292.6	LOS F	5.3	36.9	1.00	1.32	10.2
Approach		889	0.0	1.057	12.8	NA	5.3	36.9	0.04	0.06	49.4
NorthWest: Anzac Avenue											
7	L2	409	0.0	0.203	5.6	LOS A	0.0	0.0	0.00	0.53	54.9
Approach		409	0.0	0.203	5.6	NA	0.0	0.0	0.00	0.53	54.9
SouthWest: Princes Highway											
10	L2	186	0.0	0.100	5.6	LOS A	0.0	0.0	0.00	0.58	53.6
11	T1	1904	0.0	0.488	0.1	LOS A	0.0	0.0	0.00	0.00	59.8
Approach		2091	0.0	0.488	0.6	NA	0.0	0.0	0.00	0.05	59.2
All Vehicles		3389	0.0	1.057	4.4	NA	5.3	36.9	0.01	0.11	55.8

Table B1: Priority Intersection Performance of Princes Highway with Anzac Avenue for the Weekday AM Peak Hour with Residential Traffic

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed

		veh/h	%	v/c	sec		veh	m		per veh	km/h
NorthEast: Princes Highway											
5	T1	1715	0.0	0.293	0.0	LOS A	0.0	0.0	0.00	0.00	59.9
6	R2	180	0.0	0.823	43.6	LOS D	5.0	35.3	0.95	1.33	34.6
Approach		1895	0.0	0.823	4.2	NA	5.0	35.3	0.09	0.13	56.0
NorthWest: Anzac Avenue											
7	L2	199	0.0	0.098	5.6	LOS A	0.0	0.0	0.00	0.53	54.9
Approach		199	0.0	0.098	5.6	NA	0.0	0.0	0.00	0.53	54.9
SouthWest: Princes Highway											
10	L2	311	0.0	0.167	5.6	LOS A	0.0	0.0	0.00	0.58	53.6
11	T1	841	0.0	0.216	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		1152	0.0	0.216	1.5	NA	0.0	0.0	0.00	0.16	58.1
All Vehicles		3245	0.0	0.823	3.3	NA	5.0	35.3	0.05	0.16	56.7

Table B2: Priority Intersection Performance of Princes Highway with Anzac Avenue for the Weekday PM Peak Hour with Development Traffic

CARPARK CERTIFICATION OF PROPOSED AFFORDABLE RENTAL HOUSING DEVELOPMENT

2-4 Anzac Avenue, 945-947 Princess Highway in Engadine

Prepared for: Gitanes Property Group Pty Ltd

N1715939A (Version 1b)

February 2018

Motion Traffic Engineers Pty Ltd
Telephone:
940 33588
sydney@motiontraffic.com.au

ACN 600201583

1. INTRODUCTION

Motion Traffic Engineers was commissioned by Gitanes Property Group Pty Ltd to prepare a car parking certification report of a proposed affordable rental housing development at 2-4 Anzac Avenue, 945-947 Princess Highway in Engadine.

Vehicle access and egress to the car parking areas is via Anzac Avenue.

Parking is provided on one basement level.

Reference is made to AS2890.1, and AS2890.6 and Council's Development Control Plan for compliance.

2. DRIVEWAY AND RAMPS

The details of the driveway/ramp from Anzac Avenue to Basement are as follows from the perspective of the inbound movement for descriptive purposes only:

- The width of the driveway is 7.2 metres at the property line narrowing to 6.1 metres.
- 300 mm clearance is provided on both side of the ramp
- The gradients of the ramp/driveway along the centre line are as follows from the property line:
    - 5 percent for 7.5 metres
    - 8.3 percent for 4 metres
    - 15.4 percent for 3.15 metres
    - 8.3 percent for 4 metres

The gradients comply for a small rigid truck.

The minimum headroom clearance is 2.7 metres.

3. CAR SPACES

The details of the car parking areas are as follows:

Basement

- The car parking aisle is 5.8 metres wide minimum
- The car parking aisle has a gradient of 5 percent for several car parking spaces
- The general 90-degree car spaces are a minimum 2.4 metres wide and 5.4 metres long
- The visitor car spaces are 2.4 metres wide with a length of 5.4 metres
- A car wash bay 3.2 metres wide with a length of 7.6 metres is provided
- The livable residential car space is 3.2 metres wide with a length of 5.4 metres
- The disabled car spaces are 2.4 metres wide with a length of 5.4 metres

- Shared zones of the same dimensions are provided
- Appropriate bollards are provided

- Column setbacks comply with standards
- Car spaces adjacent to walls have an additional 300mm minimum.
- A blind aisle extension of 1 metre minimum is provided.

4. SWEPT PATHS

A swept turning path analysis is performed using a B99 and Garbage Collection Vehicle to confirm that vehicle movements are adequate.

The following Swept Paths have been performed:

- Garbage Collection Vehicle (6.5-metre long rigid truck) reverse inbound forward and outbound from garbage collection area

All movements show adequate manoeuvrability.

5. SIGHT DISTANCE

The car driver's sight distance requirement to enter the external road is stated in Figure 3.2 of AS2890.1.

The sight distance varies according to the speed of the external road. Anzac Avenue has a speed limit of 50km/hr.

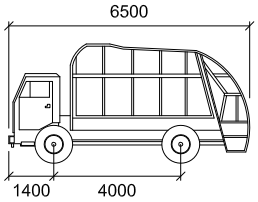
The minimum sight distance required is 45 metres. The minimum vehicle sight distance is met.

The pedestrian sight distance triangle is met as set out in Figure 3.3 of AS2890.1.

6. CONCLUSIONS AND RECOMMENDATIONS

The car parking area and driveway is compliant with Australian Standards and Council's DCP.

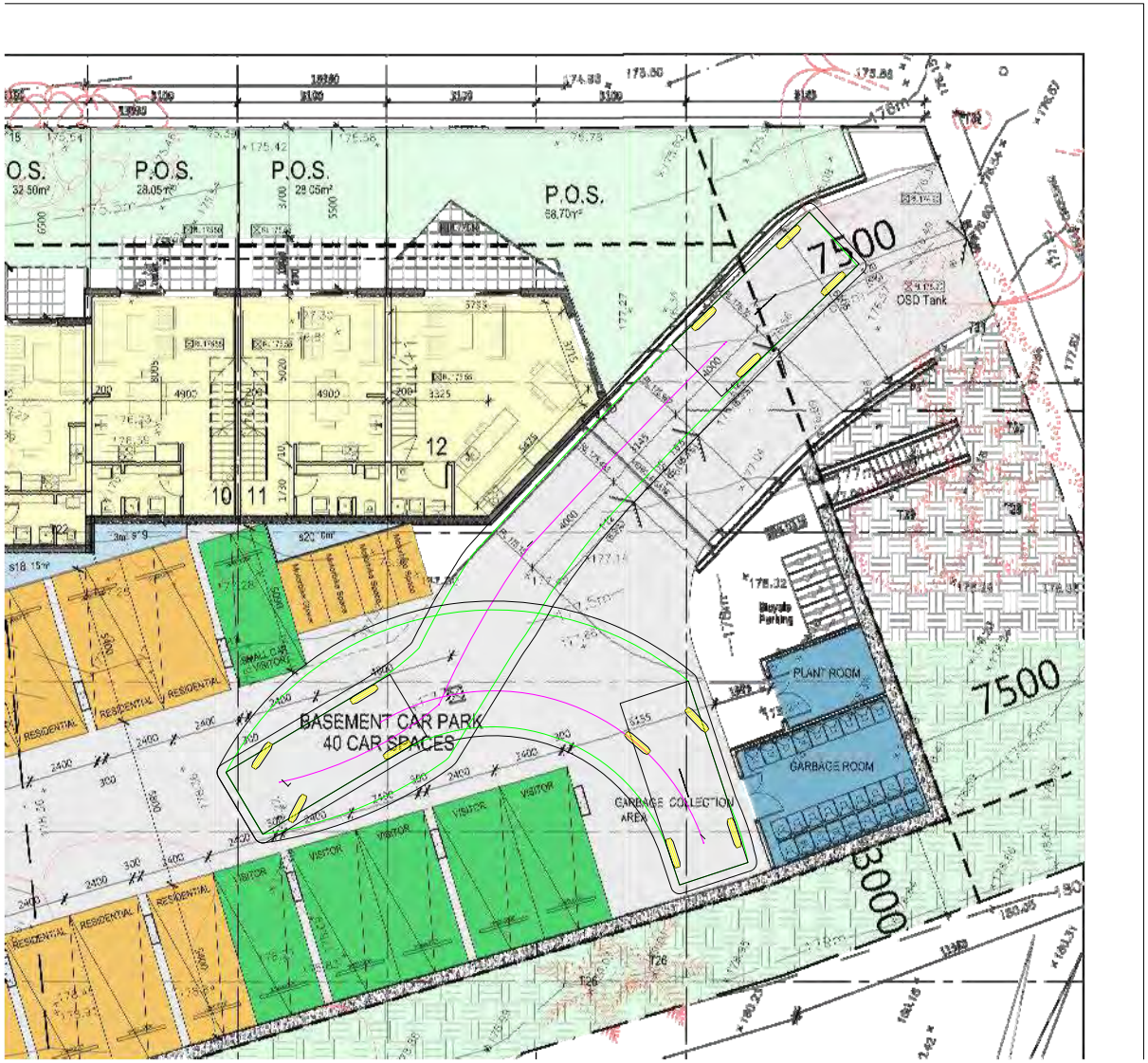
APPENDIX A – SWEPT PATHS

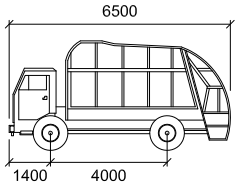


VUILNISWAGEN

	mm
Width	: 2450
Track	: 2450
Lock to Lock Time	: 6.0
Steering Angle	: 28.0

6.5 Metre Waste Truck Reverse Inbound

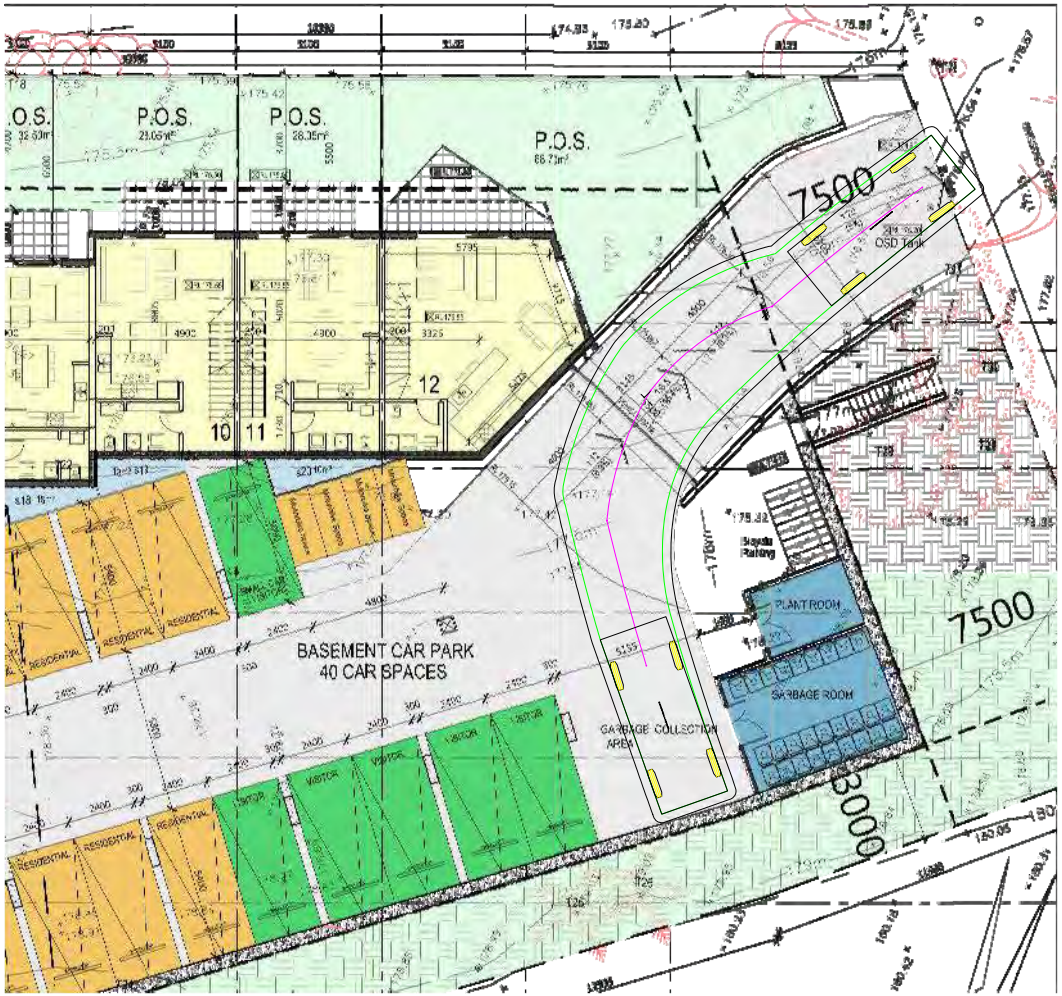




VUILNISWAGEN

	mm
Width	: 2450
Track	: 2450
Lock to Lock TIme	: 6.0
Steering Angle	: 28.0

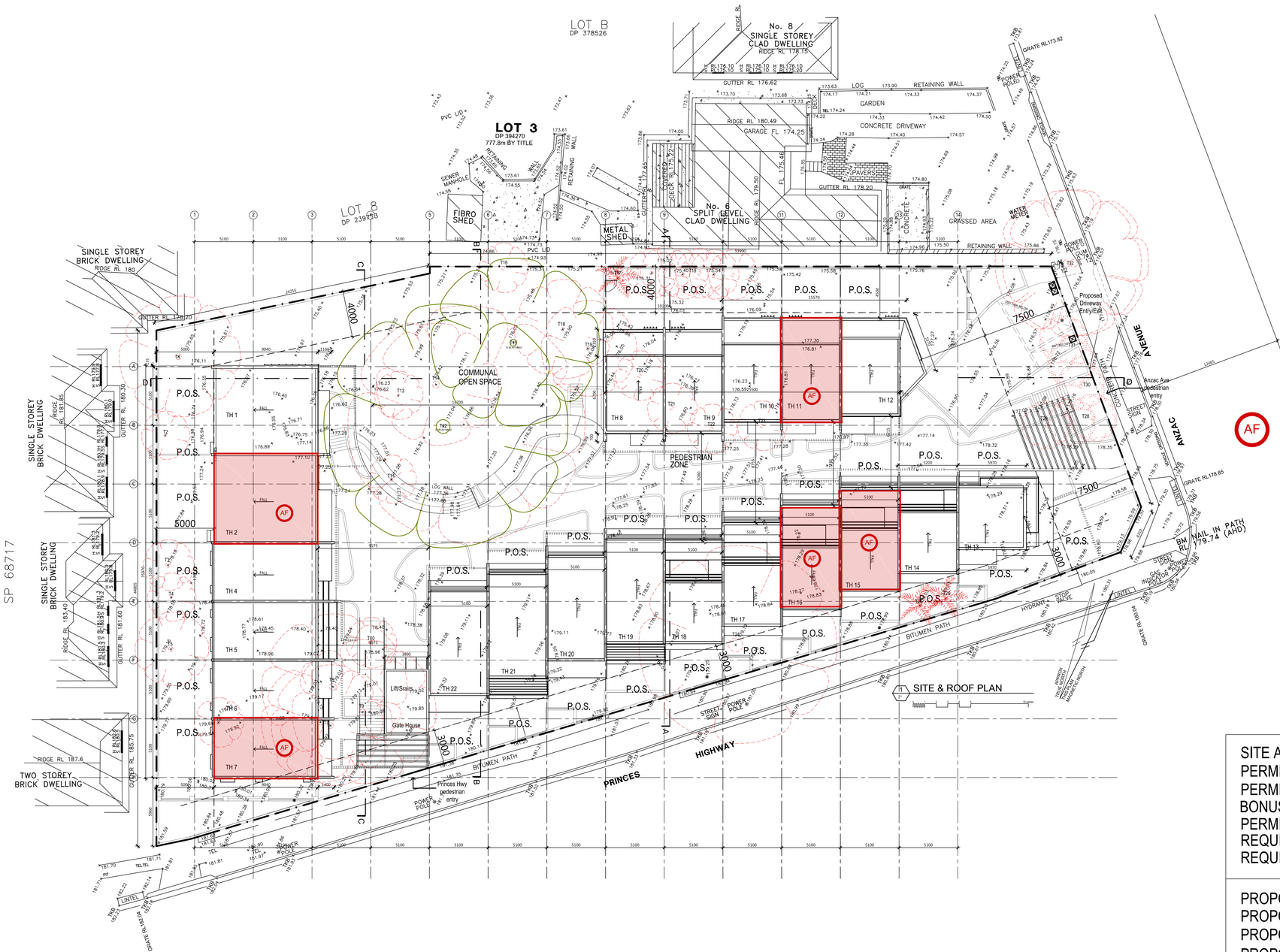
6.5 Metre Waste Truck Forward Outbound



BECHARA CHAN

AFFORDABLE TOWNHOUSES DEVELOPMENT

2-4 Anzac Ave & 945-947 Princes Hwy, Engadine



AF NOMINATED AFFORDABLE UNITS = TH 2, 7, 11 ,15 ,16

SITE AREA: 3074.31m²
PERMISSIBLE FSR : 0.550:1
PERMISSIBLE GFA: 1690.87m²
BONUS FSR PERMITTED : 0.5:1
PERMISSIBLE GFA WITH BONUS : 3228.02m²
REQUIRED LANDSCAPE AREA 30%: 922.29m²
REQUIRED DEEP SOIL AREA 35%: 1076.0085m²

PROPOSAL: 21 AFFORDABLE HOUSING TOWNHOUSES
PROPOSED FSR: 0.680:1
PROPOSED TOTAL GFA: 2093.58m²
PROPOSED LANDSCAPE AREA= 1680.74m² =54.67%
PROPOSED DEEP SOIL AREA= 1168.81m² = 38.01%
PROPOSED COMMUNAL OPEN SPACE : 454.83m² = 14.79%

TOTAL LEVEL 2 GFA	= 293.19m²
TOTAL LEVEL 1 GFA	= 709.73m²
TOTAL GROUND GFA	= 895.51m²
TOTAL BASEMENT GFA	= 195.15m²
TOTAL GFA	= 2093.58m²

Revision

A	ISSUED FOR DA	26.06.2017
B	ISSUED FOR DA RFI	16.02.2018

NOMINATED ARCHITECT: NICHOLAS LYCENKO
LICENSE NUMBER : 3010

Design by:

BC&A BECHARA CHAN & ASSOCIATES
Bechara Chan & Associates Pty Ltd
Suite 6F, Level 6, 9-13 Redmyre Road Strathfield NSW 2135
e: info@bc-a.com.au
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Drawing

DRAWN	KK KP	PROJ NO.	160615
		SCALE	1:200 on A1
CHECKED	GB	DATE	JUNE 2016

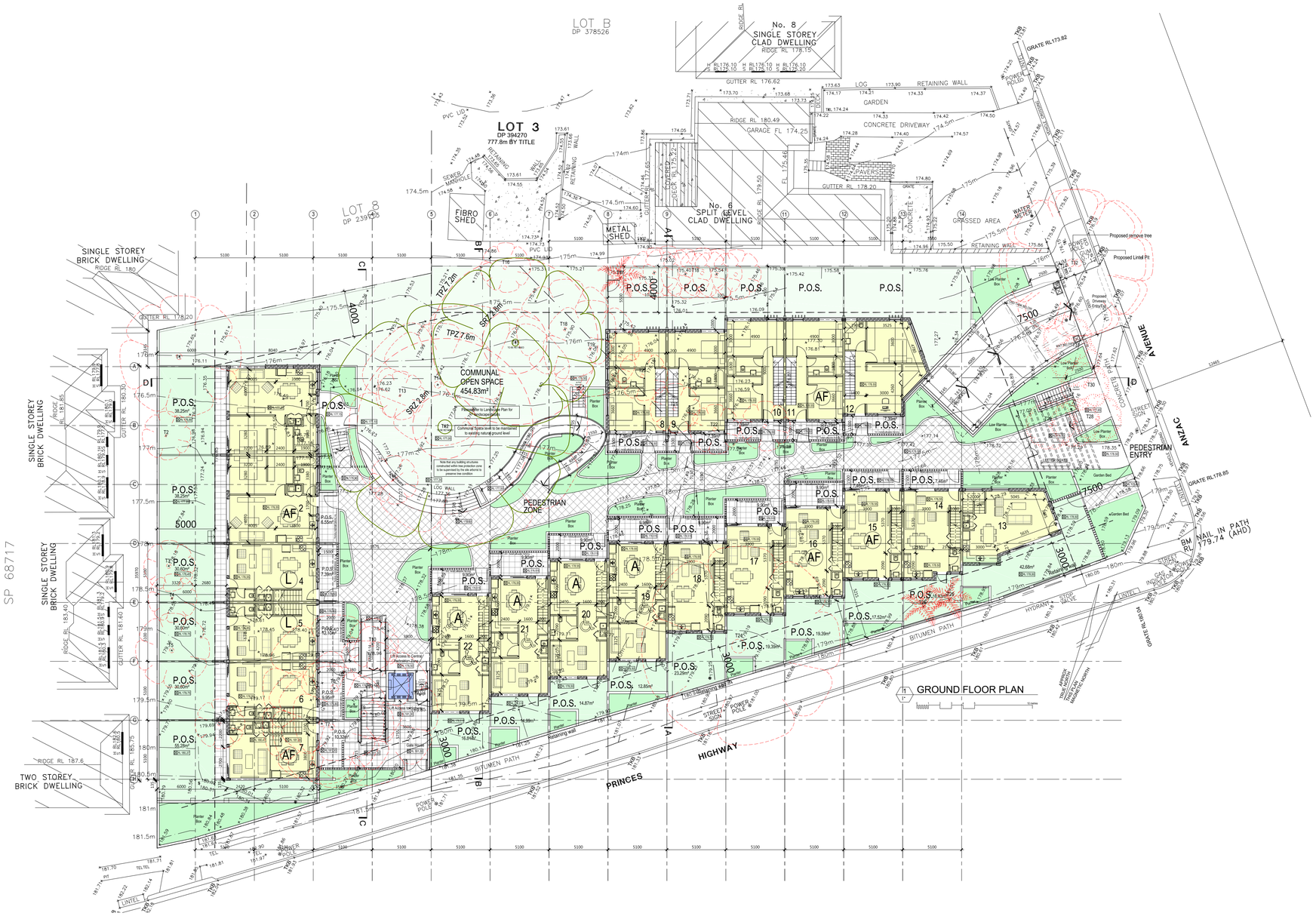
SITE & ROOF PLAN

Do not scale from drawings.
Verify all dimensions on site before commencing work.

Project

PROPOSED AFFORDABLE RENTAL HOUSING
2-4 ANZAC AVENUE, 945-947 PRINCES HIGHWAY, ENGADINE

DA-02
B



Revision

A	ISSUED FOR DA	26.06.2017
B	ISSUED FOR DA RFI	16.02.2018

NOMINATED ARCHITECT: NICHOLAS LYCENKO
LICENSE NUMBER : 3010

Design by:

BC&A BECHARA CHAN & ASSOCIATES

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Drawing

DRAWN	KK KP	PROJ NO.	160615
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GROUND FLOOR PLAN
DRIVE WAY SECTION

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Project

PROPOSED AFFORDABLE RENTAL HOUSING

2-4 ANZAC AVENUE, 945-947 PRINCES HIGHWAY, ENGADINE

DA-02.1

B

P.O.S. 33.15m²
P.O.S. 32.50m²
P.O.S. 28.05m²
P.O.S. 28.05m²
P.O.S. 68.70m²
COMMUNAL OPEN SPACE 454.83m²
Please refer to Landscape Plan for landscape details
Communal Space level to be maintained to existing natural ground level
TPZ 7.2m
TPZ 7.6m
SRZ 2.8m
SRZ 2.8m
CARWASH BAY
Stormwater sump
BASEMENT CAR PARK 40 CAR SPACES
GARBAGE COLLECTION AREA
GARBAGE ROOM
PLANT ROOM
Bicycle Parking
Common Sanitary Room
BULK STORAGE
PLANT ROOM
OSD TANK BELOW
RWT BELOW
Ramp 1:20
BITUMEN PATH
PRINCES HIGHWAY
HYDRANT
STOP VALVE
POWER POLE
GUM
LOG WALL
RESIDENTIAL
ACCESSIBLE RESIDENTIAL
LIVABLE RESIDENTIAL
VISITOR
SMALL CAR for VISITOR
Motorbike Space
shared area

LEGEND

- RESIDENTIALSPACES 5400X2400
- ACCESSIBLE RESIDENTIAL SPACES 5400X2400
- VISITOR SPACES 5400X2400
- RESIDENTIAL STORAGES
- SERVICE AREAS
- SHARED BAYS

40 CAR PARKING SPACES

34 x RESIDENTIAL (INCL.4x ACCESSIBLE SPACES, 2x LIVABLE SPACES)
6 x VISITOR SPACES
+

1 BASEMENT
1 : -
0 1 2 3 4 5 10 metres

APPROX TRUE NORTH
THIS PLAN MAGNETIC NORTH

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Drawing

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BASEMENT PLAN

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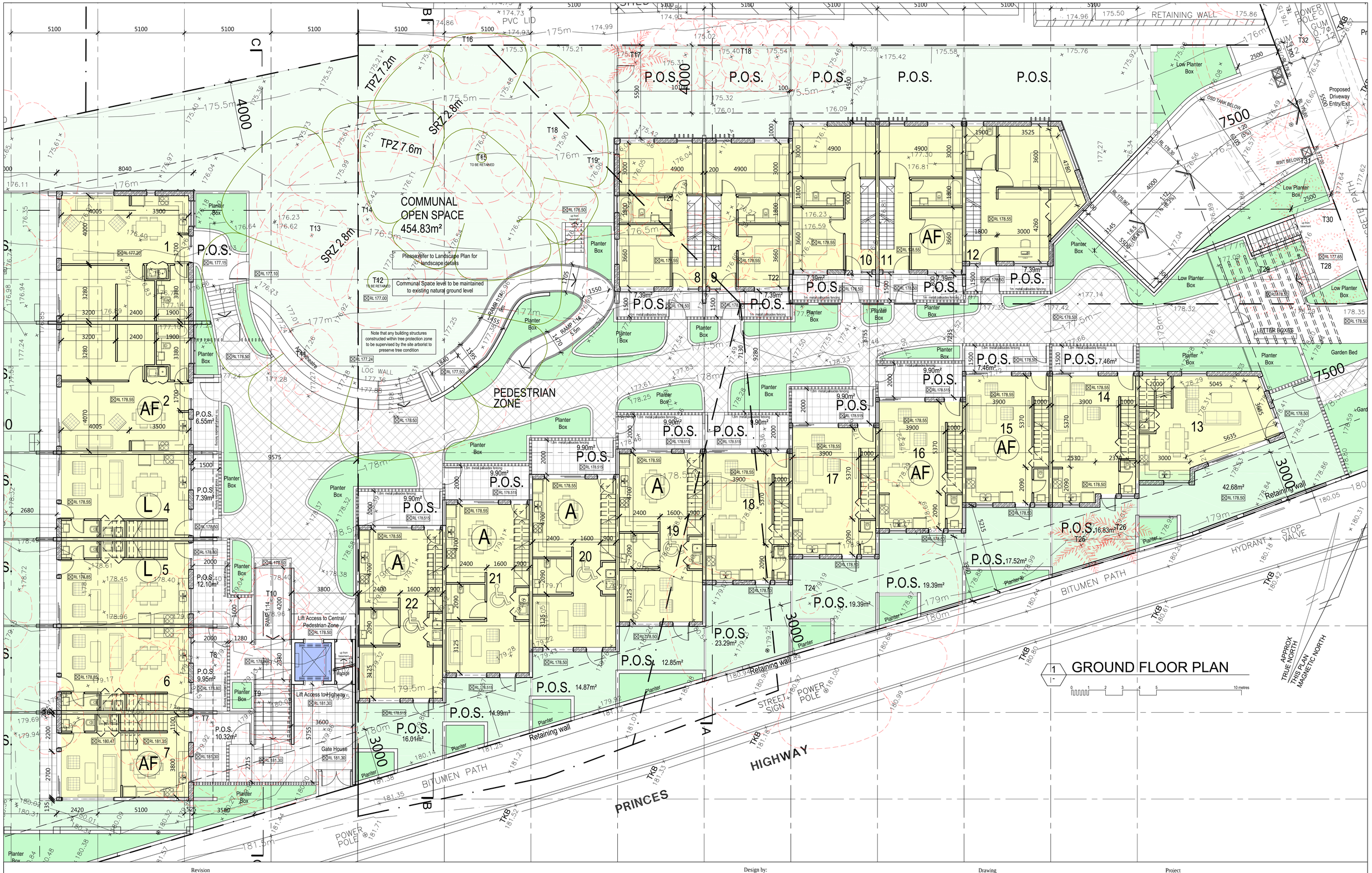
Project

PROPOSED AFFORDABLE RENTAL HOUSING
2-4 ANZAC AVENUE, 945-947 PRINCES HIGHWAY, ENGADINE

DA-03
B



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Drawing

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GROUND FLOOR PLAN

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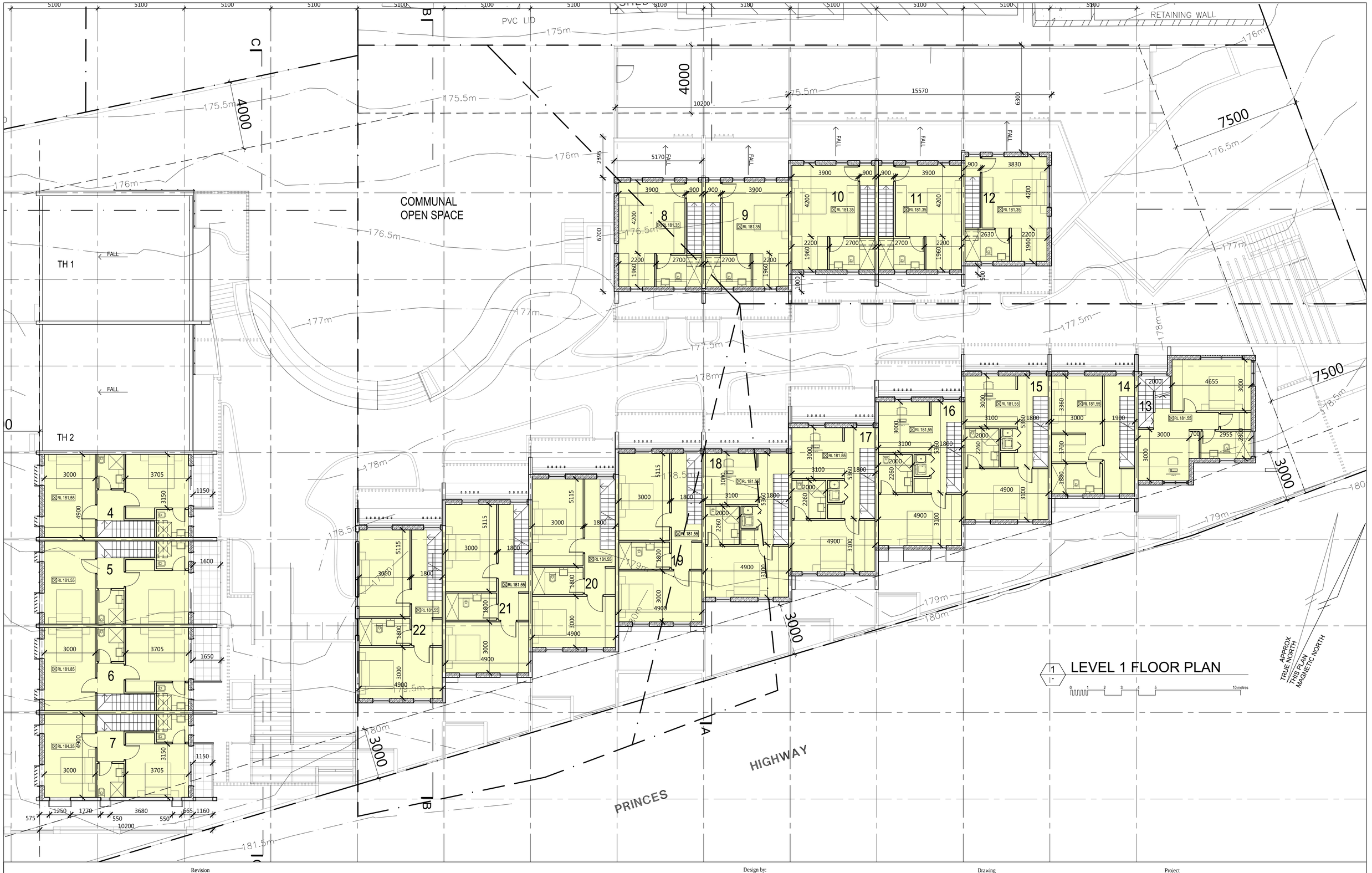
Project

PROPOSED AFFORDABLE RENTAL HOUSING
2-4 ANZAC AVENUE, 945-947 PRINCES HIGHWAY, ENGADINE

DA-04
B



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Drawing

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LEVEL 1 FLOOR PLAN

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Project

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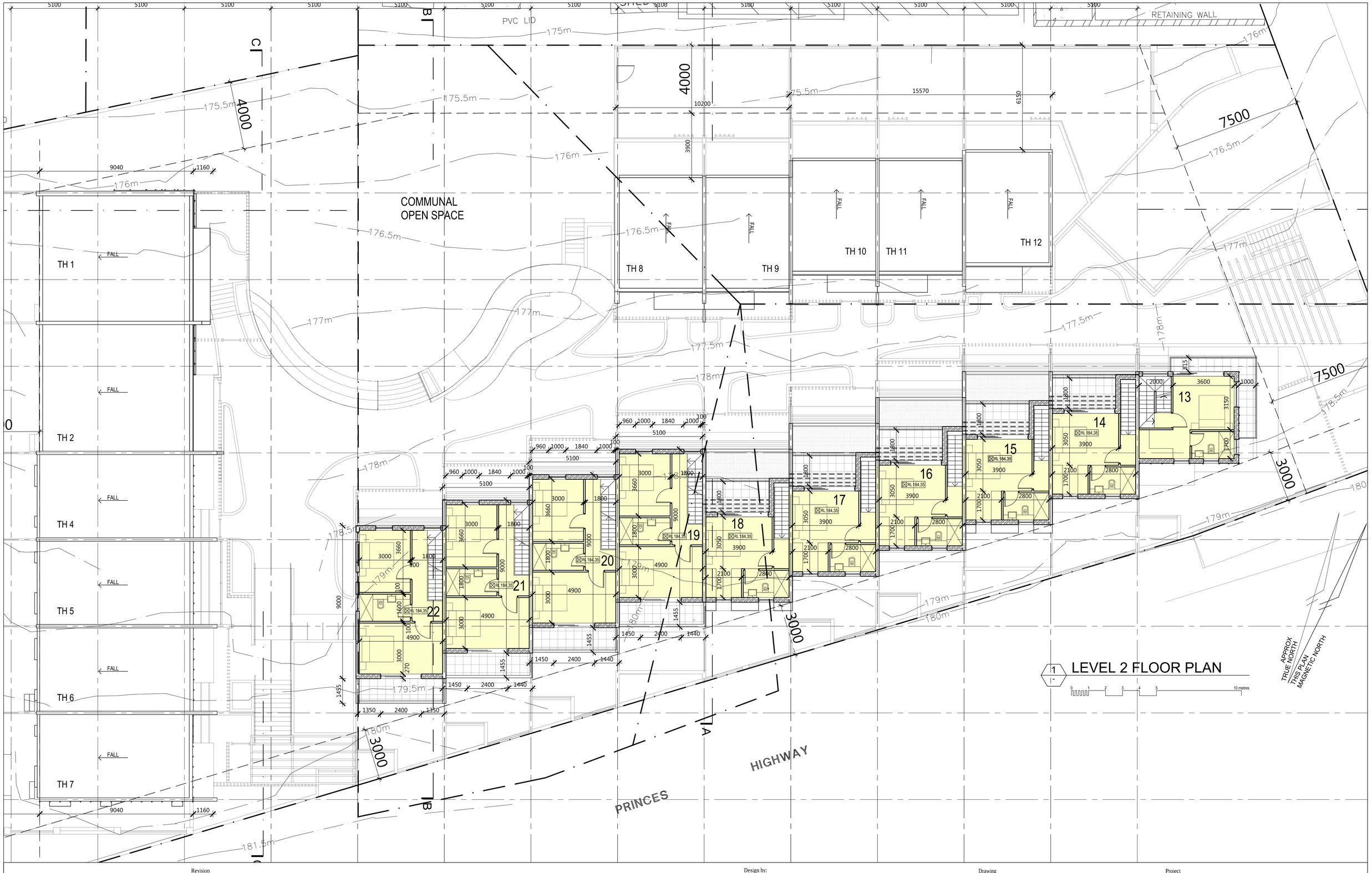
2-4 ANZAC AVENUE, 945-947 PRINCES HIGHWAY, ENGADINE

DA-05
B



1 LEVEL 2 FLOOR PLAN

1:100 0 1 2 3 4 5 10 metres

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LEVEL 2 FLOOR PLAN

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Project

PROPOSED AFFORDABLE RENTAL HOUSING
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DA-06
B

1 - NORTH ELEVATION

FINISHES SCHEDULES

- A Exterior walls rendered & painted with Dulux Malay Grey
- B Exterior walls rendered & painted with Dulux Pale Elements
- C Exterior walls – Face brick Bowral Brahman Granite
- D Top Level Wall Cladding – Horizontal Weatherboard Cladding
- E Featured Elements & Louvres - Dulux Colorbond Basult
- F Aluminium Door, Window Frames & Louvres - Dulux Colorbond Night Sky
- G Front Feature & Fence – Timber-look Cladding Products
- H Exterior walls rendered & painted with Dulux Lexicon Quarter

2 - EAST ELEVATION

BECHARA CHAN BC&A ASSOCIATES

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NORTH ELEVATION
EAST ELEVATION

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Project

PROPOSED AFFORDABLE RENTAL HOUSING
2-4 ANZAC AVENUE, 945-947 PRINCES HIGHWAY, ENGADINE

DA-07
B