

21 March 2023
Ref: 22049

Freedom Development Group
PO Box 446
DRUMMOYNE NSW 1740

Attention: Edward Fernon
edward@freedomdevelopment.com.au

Dear Edward,

59 Tindale Street, Muswellbrook
Proposed Residential Development – Stage 2
Traffic & Parking Assessment Report

Introduction

In September 2021, the Land & Environment Court approved DA2021/26, involving the change of use of an aged care facility on the western portion of site into a boarding house, as well as the change of use of independent seniors living units into dual occupancy dwellings. The approved DA2021/26 scheme is referred to as Stage 1.

This new Development Application (DA) involves the construction of a new multi-dwelling residential development on the vacant eastern portion of the site, referred to as Stage 2.

Site

The Stage 2 subject site is located on the southern side of Tindale Street, towards the far eastern end. The site has a street frontage of 64m in length to Tindale Street and occupies an area of 5,110m².



Figure 1 – Aerial image of the subject site from 12 February 2023 (Source: Nearmap)

The Stage 2 subject site is currently vacant, as indicated in the recent aerial image in Figure 1, as well as Streetview images below.



Figure 2 – Streetview image of the subject site from Tindale St, looking west (Source: Google Maps)



Figure 3 – Streetview image of the subject site from Tindale St, looking east (Source: Google Maps)

Approved DA2021/26 Stage 1 Scheme

As noted in the foregoing, In September 2021, the Land & Environment Court approved DA2021/26, involving the change of use of a 36-bed aged care facility on the western portion of site into a 44-room boarding house, as well as the change of use of 14 independent seniors living units into dual occupancy dwellings.

Off-street parking in the DA2021/26 scheme is approved for 52 cars at various locations through the Stage 1 site. Vehicular access is approved via two separate two-way driveways located off the Tindale Street site frontage.

The approved DA2021/26 consent also requires the construction of full kerb & guttering along Stage 1's Tindale Street site frontage, noting Stage 2 already has kerb & guttering. In addition, the DA2021/26 consent requires the construction of a new 2.0m wide public footpath within the Council verge, along the entire Tindale Street frontage.

A copy of the approved DA2021/26 Stage 1 architectural plans are provided in Appendix A.

Proposed Development – Stage 2

The proposed development involves the construction of a new multi-dwelling residential development on the vacant eastern portion of the site, comprising a total of 30 dwellings (inc. 4 adaptable), as follows:

<u>Proposed dwelling mix</u>	
1 bedroom dwelling:	5
2 bedroom dwelling:	25
Total:	30

In addition, an ancillary communal space building is also proposed for the shared use of residents within the development, as well as their guests.

Off-street parking is proposed for 49 cars (inc. 5 accessible) plus a dedicated van loading bay, at various locations throughout the site, directly outside the dwellings.

Vehicular access to Dwellings 11-30, the communal area and van loading bay is proposed via a new 5.8m wide two-way driveway located midway along Stage 2's Tindale Street site frontage.

Due to the topography of the site and design requirements for accessibility, vehicular access to Dwellings 1-10 is proposed to be provided directly off Tindale Street, rather than the main driveway.

Waste collection is to be undertaken by Council from the kerbside area outside the Stage 2 site frontage. In this regard, residents will line their bins up along the kerb on "bin night" for collection the following day.

A copy of the proposed Stage 2 architectural plans are provided in Appendix B.

Public Transport

There are currently 2 bus services which operate within the vicinity of the site, with the closest bus stop to the site located approximately 200m walking distance west of the site along Tindale Street, just west of Nowland Street. The bus stop is serviced by the 411 Sydney Street service as well as the 413 Highbrook loop service.

The abovementioned bus services also connect with train services at Muswellbrook railway station, which lies on the Hunter Line, operating 7 days between Newcastle Interchange, Scone and Dungong via Singleton and Maitland. Alternatively, for those inclined, Muswellbrook railway station is located approximately 1.6km walking distance to/from the site.

Muswellbrook town centre is also located approximately 1.8km north of the site which includes a wide range of essential shops and services including the post office, Woolworths, Big W, butchery, cafés and restaurants, bakery, banks, bottle shop, pharmacy, gymnasium, hairdressers and beauticians.

A copy of the bus network map and timetable is provided in Appendix C.

Traffic Assessment

The traffic implications of development proposals primarily concern the effects of any *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 commuter peak periods.

An indication of the traffic generation potential of the proposed development is provided by reference to the former RMS publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)* and the updated traffic generation rates in the RMS TDT 2013/04a documents.

Strictly speaking, the proposed multi-dwelling development with 30 dwellings is classified as “high density – i.e. *a development containing more than 20 dwellings*”. For the purposes of this assessment, however, the “medium density” traffic generation rates have been adopted, as indicated below.

Medium Density Residential

0.4-0.5 peak hour vehicle trips per 1 & 2 bedroom dwellings

Application of the above “medium density” traffic generation rates to the proposed development containing 30 dwellings, yields a traffic generation potential of 15 vehicle trips during the weekday morning and afternoon peak periods. Typically, this will comprise 3 trips IN/12 trips OUT during the morning peak and 12 trips IN/3 trips OUT during the afternoon peak.

These peak period traffic volumes are minimal and represent, on average, 1 additional vehicle trip every 4 minutes during the weekday peak periods. These additional trips fall within typical daily fluctuations of the local road network and will have minimal impacts on the surrounding road network.

Muswellbrook LEP 2009 also permits residential building heights of up to 8.5m on the subject site. Essentially, the planning controls dictate that a the proposed development is permissible and envisaged, as is the traffic activity associated with that density.

Accordingly, the road network operation is expected to remain at the same level of service and is therefore supportable on traffic grounds.

Parking Assessment

The off-street parking rates applicable to the proposed development are specified in the Muswellbrook DCP 2009, Section 16 – Car Parking and Access document in the following terms:

Multi Dwelling Housing

<i>1 bedroom dwelling:</i>	<i>1 car parking space per dwelling</i>
<i>2 bedroom dwelling:</i>	<i>1.5 car parking space per dwelling (the 0.5 space is to remain as common property)</i>
<i>Visitors:</i>	<i>1 car parking space per 5 dwellings</i>
<i>Car wash bay:</i>	<i>1 car wash bay for any development containing more than 10 dwellings</i>

Application of the above MDCP 2009 car parking rates to the proposed development containing 30 dwellings, yields an off-street car parking requirement of 49 spaces, as indicated below:

MDCP 2009 Car Parking Requirements

<i>Residential:</i>	<i>42 spaces (including 12 spaces as common property)</i>
<i>Visitors:</i>	<i>6 spaces</i>
<i>Car wash bay:</i>	<i>1 space</i>
Total:	49 spaces

The proposed development makes provision for 49 cars (including 5 accessible spaces), thereby satisfying Council's MDCP 2009 numerical requirements.

Design Layout Compliance

The geometric design layout of the parking area has been reviewed and are in compliance with AS2890.1:2004. In particular, the following key compliances are noted:

- 5.4m long x 2.4m wide car spaces in accordance with User Class 1A requirements, with a maximum crossfall of 5.0% (1:20) to 6.25% (1:16), depending on the direction
- 5.4m long x 4.8m wide accessible car spaces in accordance with AS2890.6:2009 requirements, with a maximum crossfall of 2.5% (1:40) in any direction
- minimum 1m "aisle extensions" at the dead-ends of the car park
- maximum 150mm high kerbs for parking spaces located adjacent to planter beds
- no obstructions within the "design envelope" of any car parking spaces

The proposed vehicular access and parking arrangement has been designed to accommodate the swept turn path requirements of the B99 & B85 design vehicles, allowing them to enter and exit the site via the proposed main driveway in a forward direction at all times, with the exception of Dwellings 1-10 which have direct access off Tindale Street.

The proposed design can also accommodate a 6.4m long small rigid truck, with turning bays provided at the rear of the site, allowing the truck to also enter and exit the site in a forward direction.

A copy of the swept turn paths are provided in Appendix D.

Whilst the proposed layout has been designed in accordance with the above Australian Standards, it is expected that a condition of consent would be imposed requiring reconfirmation of compliance at the Construction Certificate stage (CC). Any minor amendments required to the current DA design can therefore be addressed at the CC stage.

Conclusion

In summary, the proposal involves the construction of a new multi-dwelling residential development on the vacant eastern portion of the site, referred to as Stage 2, comprising 30 dwellings.

The proposed development is expected to generate just 15 vehicle trips during the weekday morning and afternoon peak periods, which will not result in any unacceptable traffic implications in terms of road network capacity.

Off-street parking is also proposed for 49 cars at various locations throughout the site, in accordance with MDCP 2009's numerical parking rates, whilst the parking layout complies with AS2890.1.

In the circumstances, it is concluded that the proposed development will not result in any unacceptable traffic, parking, or access implications.

Please do not hesitate to contact me should you have any comments or questions.

Kind regards



Chris Palmer
Director
B.Eng (Civil), MAITPM

Attachments:

1. DA2021/26 approved architectural plans
2. Proposed architectural plans
3. Bus network map and timetable
4. Swept turn paths

Appendix A

DA2021/26 approved architectural plans

SEE SHEET 05-01 FOR DETAILS OF
ROOMS, ENSUITES & KITCHENETTE
FLOOR AREA OF BOARDING HOUSE

BOARDING HOUSE

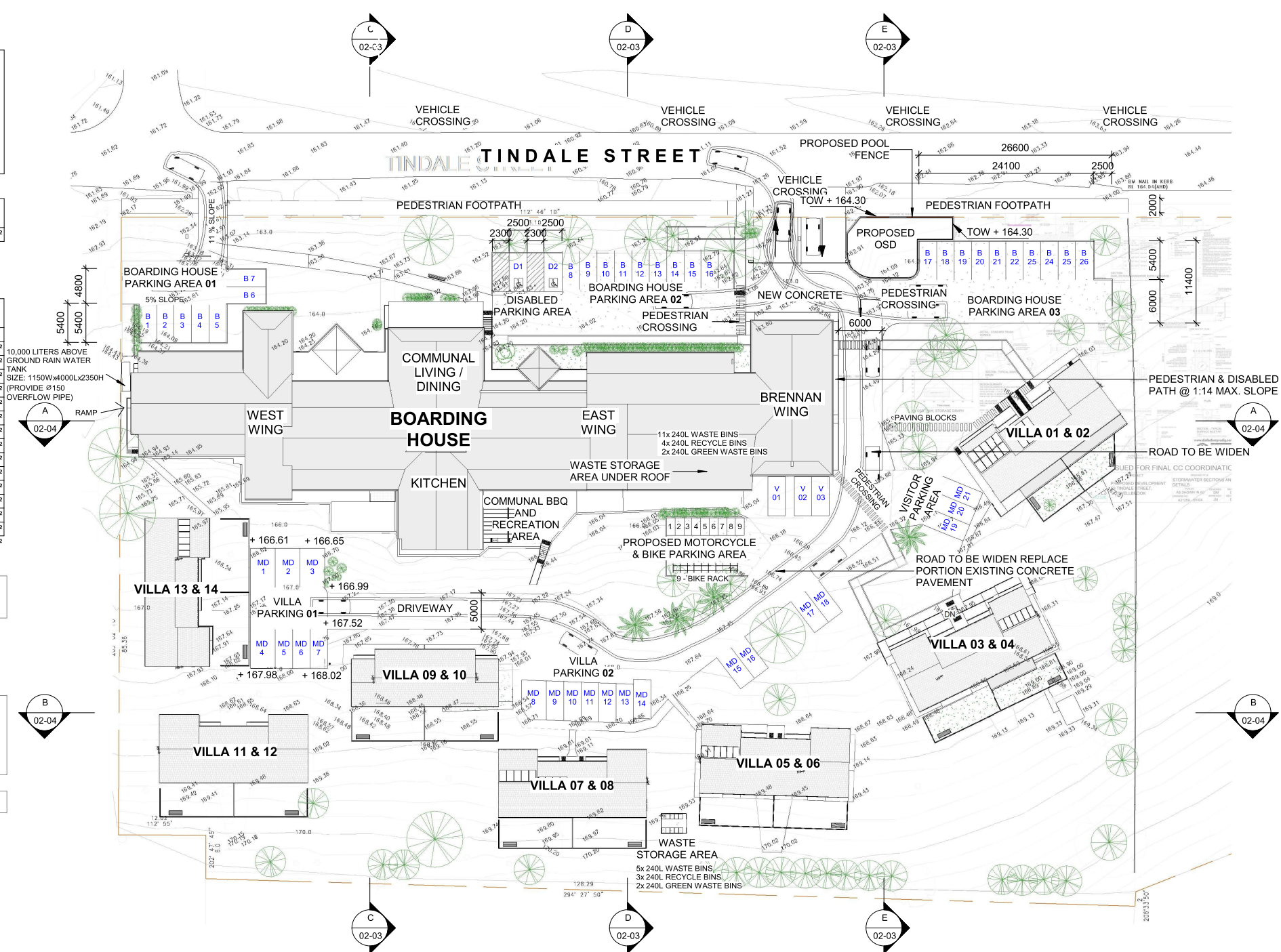
GFA	1,417.68 m ²
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VILLAS - GFA	
ROOM	GFA
NO. 01	61.29 m²
NO. 02	61.29 m²
NO. 03	61.40 m²
NO. 04	61.40 m²
NO. 05	61.54 m²
NO. 06	61.54 m²
NO. 07	59.89 m²
NO. 08	59.90 m²
NO. 09	51.50 m²
NO. 10	51.50 m²
NO. 11	59.89 m²
NO. 12	59.67 m²
NO. 13	56.91 m²
NO. 14	56.82 m²
	824.54 m²

TOTAL GFA = 1,417.68 + 824.54
= **2,242.22 m²**

BOARDING HOUSE	26
VILLA PARKING	21
VISITOR PARKING	3
DISABLED PARKING	2
<hr/>	
TOTAL	52

MOTORCYCLE PARKING 9



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www.steeleassociates.com.au
ABN: 43619 007 310

219 St. Johns Rd.
Forest Lodge 2037
Nominated Architect:
Oliver Steele 7474 (C)



59 Tindale St., Musswellbrook
CLIENT NOT FOR CONSTRUCTION
Tindale Property Investment Pty. Ltd.

DRAWING PR
DESCRIPTION
Schematic Design

PROPOSED - SITE PLAN

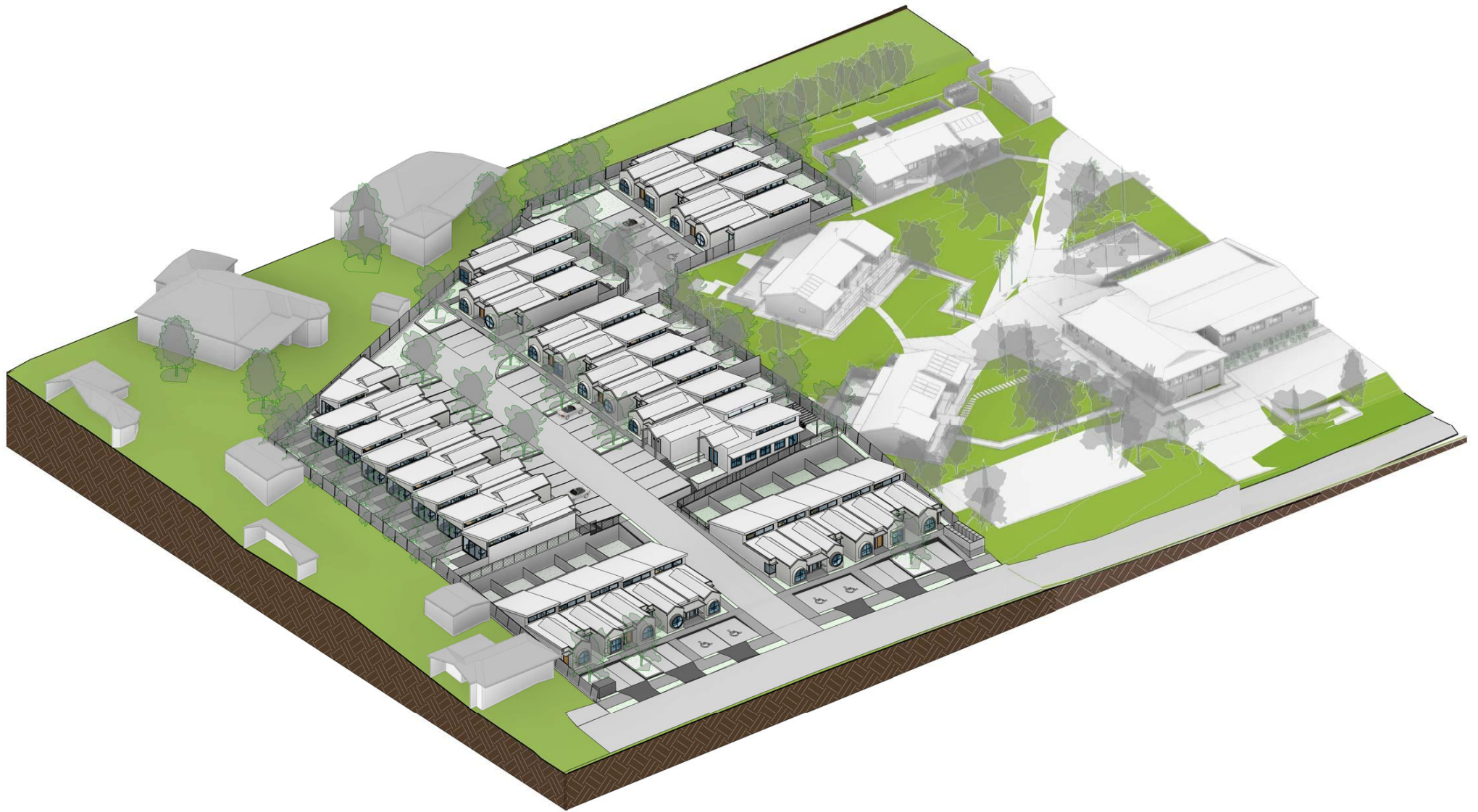
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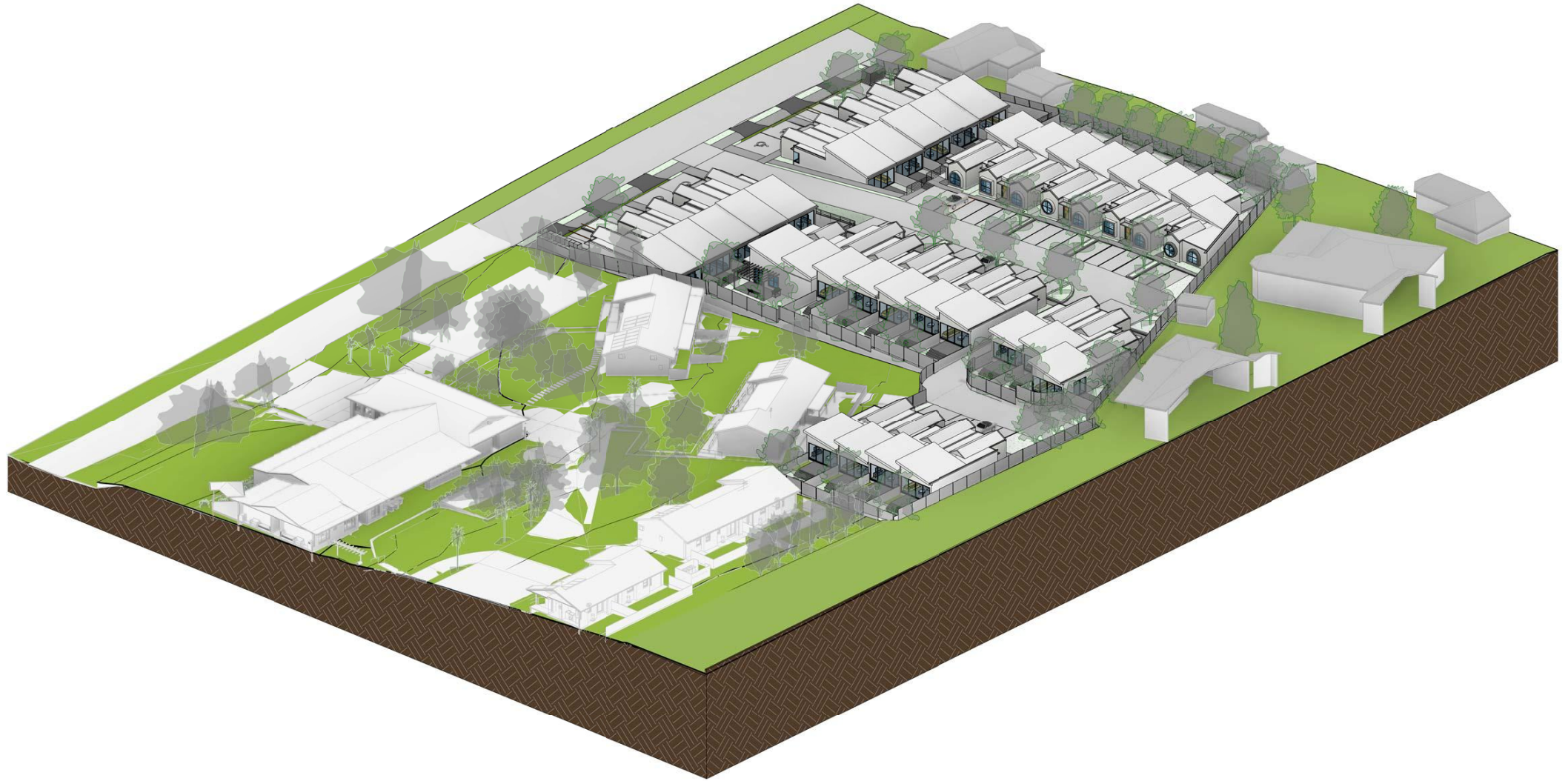
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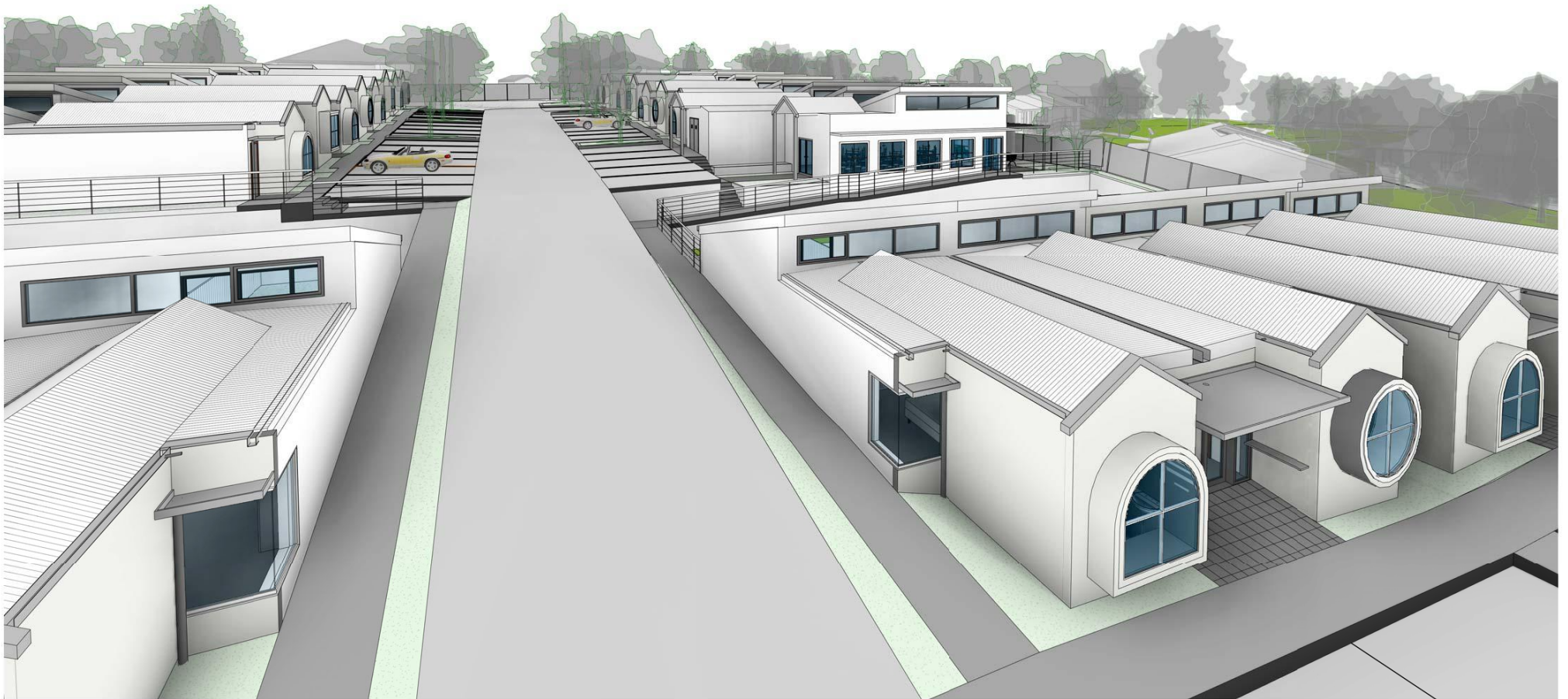
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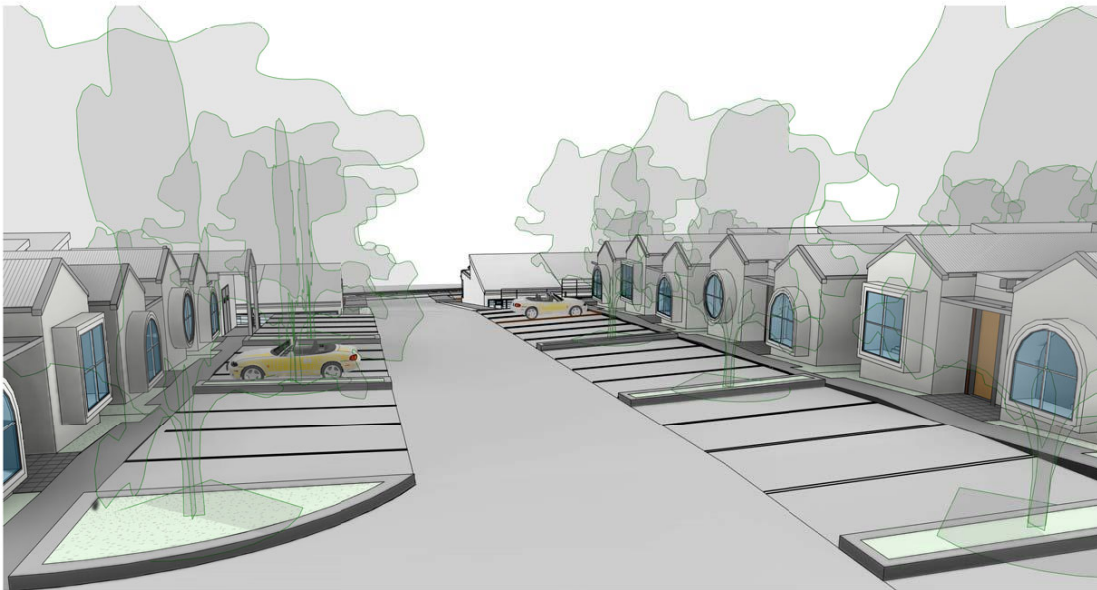
Appendix B

Proposed architectural plans









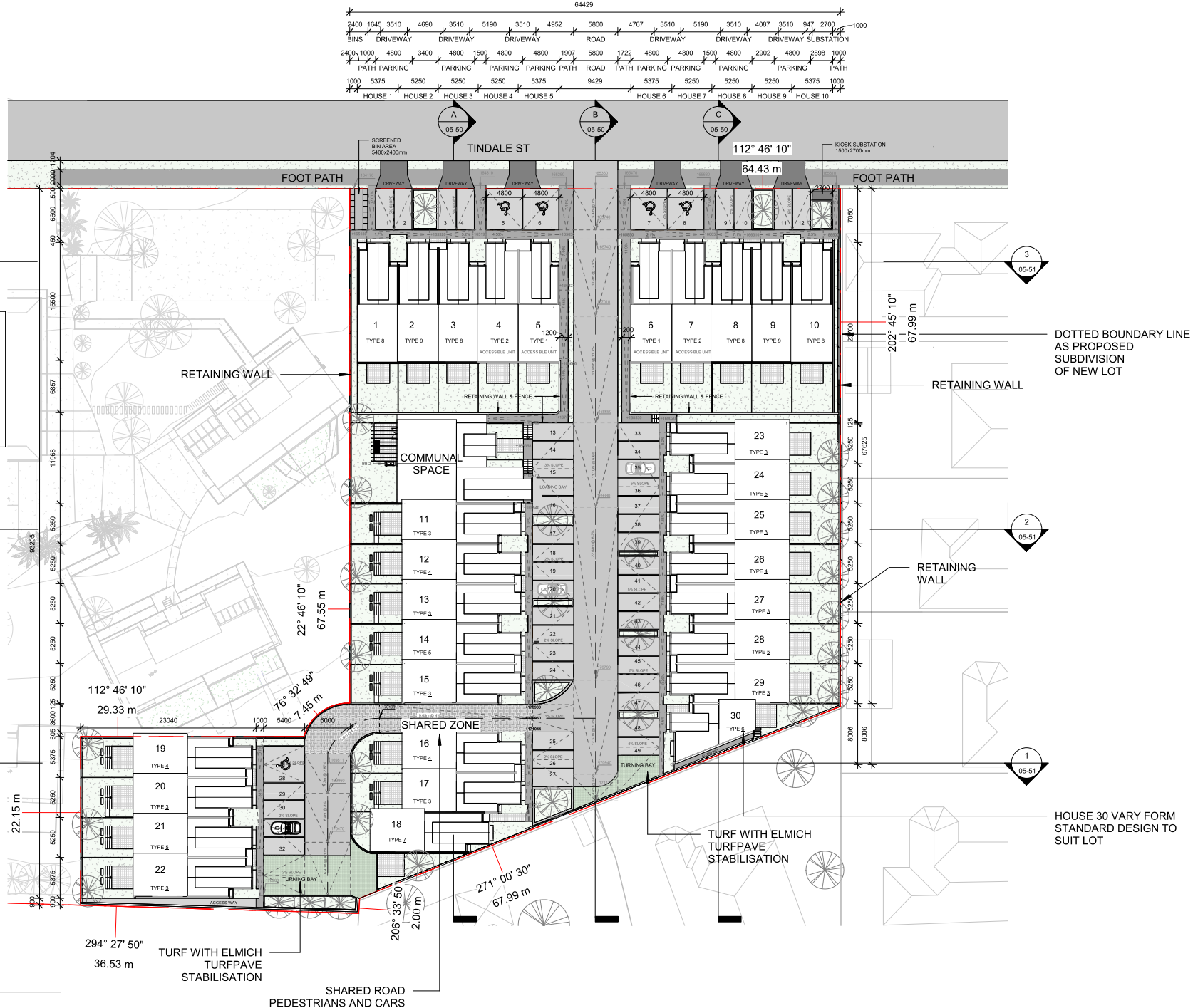
LOT AREA 6033 m²
TOTAL GFA 2263.84 m² or FSR: 0.37:1
(752.66 m² Under Permissible)

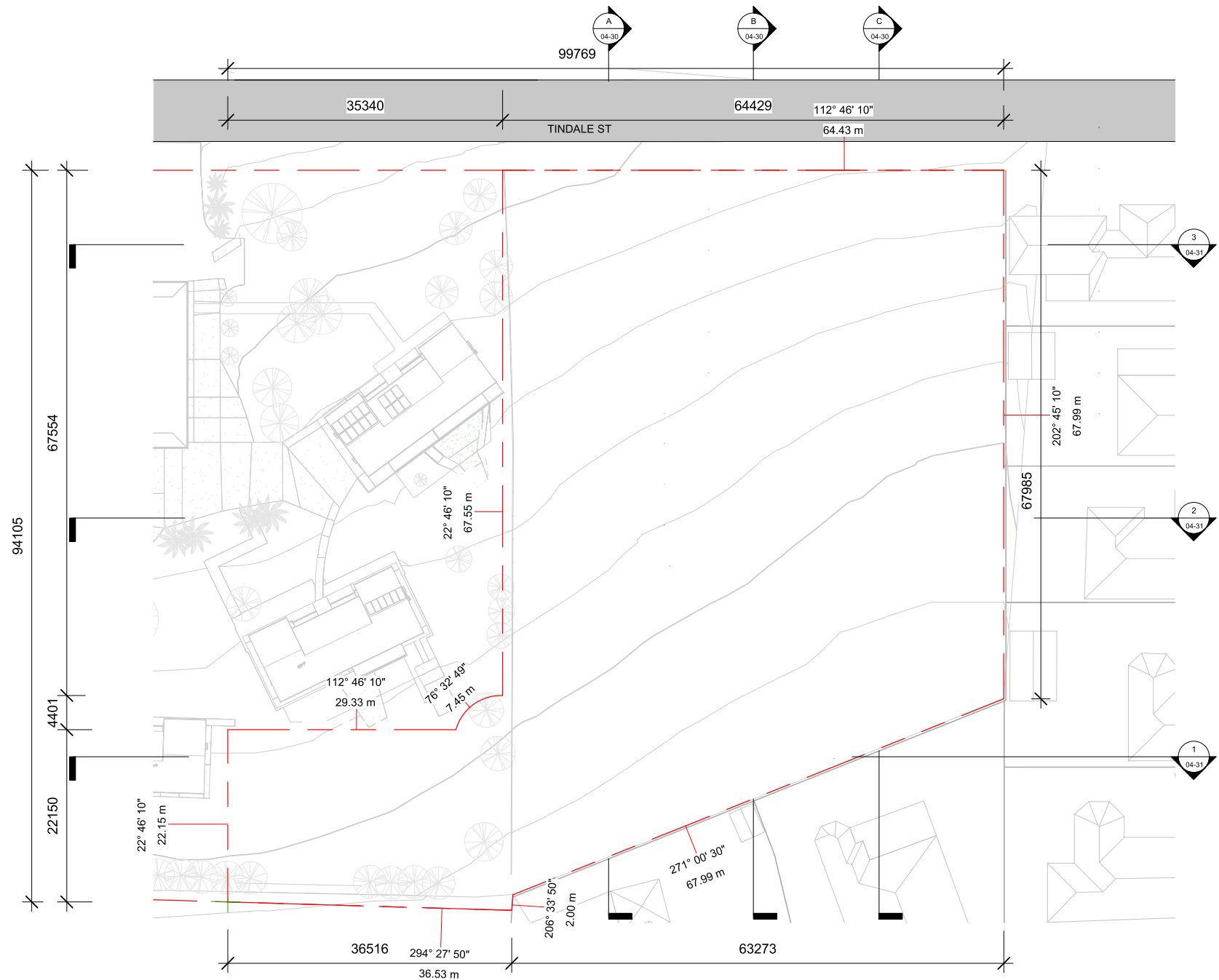
PERMISSIBLE FSR 0.5:1 or 3,016.5 m²

LANDSCAPE 1463.41 m² or 24.26%

PAVED AREA 2111.62 m² (Includes Car Parking Areas)

B SITE PLAN
1 : 500





Appendix C

Bus network map and timetable

411 / 412 / 413

418 / 419

EFFECTIVE AUGUST 2022

Muswellbrook Town Bus Service Timetable



411 / 412 / 413		MONDAY-FRIDAY (EXCLUDING PUBLIC HOLIDAYS)						SATURDAY MORNING			
		Loop 1				Loop 2		Loop 1			
411 / Sydney Street Loop	Depot	9.10am	-	-	-	1.05pm	-	9.10am	-	-	-
	NRMA	-	10.35am	12.00pm	12.38pm	1.10	1.40pm	-	10.35am	12.00pm	12.38pm
	Railway Station	-	10.39	12.04	-	1.15	1.44	-	10.39	12.04	-
	Maitland & Sydney Street	9.12	10.42	12.07	-	-	1.46	9.12	10.42	12.07	-
	Wollombi Road	9.15	10.45	12.10	-	-	1.48	9.15	10.45	12.10	-
	Tobruk Avenue	9.20	10.49	12.15	-	-	1.52	9.20	10.49	12.15	-
	Nowland & Skellatar Street	9.25	10.54	12.17	-	-	1.58	9.25	10.54	12.17	-
	Lorne & Maitland Street	9.28	10.57	-	-	-	2.01	9.28	10.57	-	-
	Railway Station	9.32	10.59	-	-	-	2.04	9.32	10.59	-	-
412 / Northern Loop	Brook Medical Centre	9.35	11.02	-	12.41	-	2.06	9.35	11.02	-	12.41
	Hospital	9.37	11.05	-	12.44	-	2.08	9.37	11.05	-	12.44
	Lexia & Queen Street	9.44	11.11	-	12.46	-	2.14	9.44	11.11	-	12.46
	Bligh & Hastings Street	9.50	11.16	-	12.53	-	2.20	9.50	11.16	-	12.53
	Barrington & Cousins Street	9.53	11.20	-	12.55	-	2.22	9.53	11.20	-	12.55
	Wilkins & Ford Street	9.57	11.24	-	1.04	-	2.26	9.57	11.24	-	1.04
413 / Highbrook Loop	NRMA	10.05	11.31	-	-	-	2.30	10.05	11.31	-	-
	Railway Station	10.08	11.36	-	-	-	2.35	10.08	11.36	-	-
	Depot	-	-	-	1.10	-	-	-	-	-	1.10
	Tobruk Avenue	-	-	-	-	-	2.37	-	-	-	-
	Nowland & Skellatar Street	10.13	11.39	12.17	-	1.18	2.38	10.13	11.39	12.17	-
	Cassidy Ave & Rutherford Road	10.18	11.42	12.23	-	1.22	2.42	10.18	11.42	12.23	-
	Calgaroo Ave & Woollybutt Way	10.21	11.48	12.27	-	1.29	2.49	10.21	11.48	12.27	-
	New England Highway	10.23	11.53	12.33	-	1.31	2.51	10.23	11.53	12.33	-
	Hospital – Opposite	10.32	11.59	12.36	-	1.36	-	10.32	11.59	12.36	-
	Depot	-	-	-	-	-	2.56	-	-	-	-

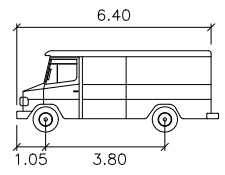
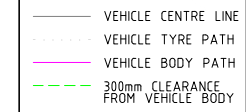
418 / 419		MONDAY-FRIDAY (EXCLUDING PUBLIC HOLIDAYS)						SATURDAY MORNING			
		Loop 1				Loop 2		Loop 1			
418 / Eastlinks Loop	Depot	9.20am	-	-	-	1.58pm	-	9.20am	-	-	-
	NRMA	-	10.13am	11.13am	12.13pm	-	2.22pm	-	10.13am	11.13am	12.13pm
	Railway Station	-	10.17	11.17	12.17	-	2.24	-	10.17	11.17	12.17
	Bimbadeen Drive	9.23	10.23	11.23	-	-	2.28	9.23	10.23	11.23	-
	Henry Dangar Drive	9.25	10.25	11.25	-	-	2.30	9.25	10.25	11.25	-
	Jeans Street	9.27	10.27	11.27	-	-	2.32	9.27	10.27	11.27	-
	Jenkins Street	9.31	10.31	11.31	-	-	2.35	9.31	10.31	11.31	-
	Acacia Drive	9.33	10.33	11.33	-	-	2.37	9.33	10.33	11.33	-
	Ironbark Road & Edinglassie Drive	9.37	10.37	11.37	-	-	2.41	9.37	10.37	11.37	-
	Jillaroo Way & Ironbark Road	9.41	10.41	11.41	-	-	2.45	9.41	10.41	11.41	-
	Woollybutt Way	9.44	10.44	11.44	-	-	2.48	9.44	10.44	11.44	-
	Back of Aldi	9.45	10.45	11.45	-	-	2.49	9.45	10.45	11.45	-
	Railway Station	9.50	10.50	11.50	-	-	-	9.50	10.50	11.50	-
419 / Queen Loop	Brook Medical Centre	9.54	10.54	11.54	-	2.03	-	9.54	10.54	11.54	-
	Hospital	9.56	10.56	11.56	-	2.07	-	9.56	10.56	11.56	-
	Bowman & Queen Streets	9.59	10.59	11.59	-	2.08	-	9.59	10.59	11.59	-
	Queen & Holsworthy Streets	10.03	11.03	12.03 pm	-	2.12	-	10.03	11.03	12.03 pm	-
	Lohnro Place	10.04	11.04	12.04	-	2.13	-	10.04	11.04	12.04	-
	Cabernet Street	10.07	11.07	12.07	-	2.16	-	10.07	11.07	12.07	-
	Hospital – Opposite	10.11	11.11	12.11	-	2.20	-	10.11	11.11	12.11	-
	Depot	-	-	-	12.21	-	2.56	-	-	-	12.21



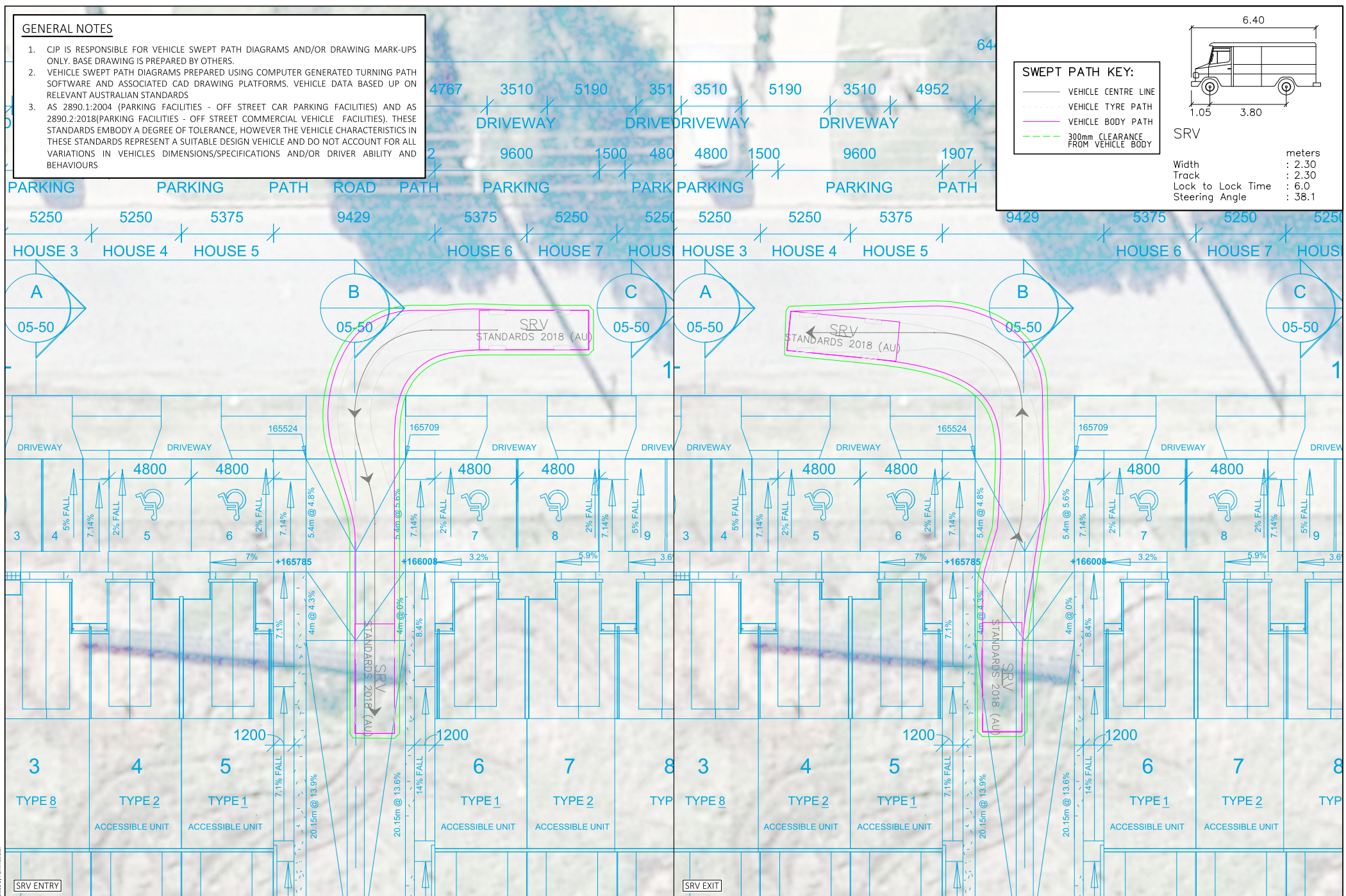
Appendix D

Swept turn paths

1. CIP IS RESPONSIBLE FOR VEHICLE SWEEP PATH DIAGRAMS AND/OR DRAWING MARK-UPS ONLY. BASE DRAWING IS PREPARED BY OTHERS.
2. VEHICLE SWEEP PATH DIAGRAMS PREPARED USING COMPUTER GENERATED TURNING PATH SOFTWARE AND ASSOCIATED CAD DRAWING PLATFORMS. VEHICLE DATA BASED UP ON RELEVANT AUSTRALIAN STANDARDS
3. AS 2890.1:2004 (PARKING FACILITIES - OFF STREET CAR PARKING FACILITIES) AND AS 2890.2:2018(PARKING FACILITIES - OFF STREET COMMERCIAL VEHICLE FACILITIES); THESE STANDARDS EMBODY A DEGREE OF TOLERANCE, HOWEVER THE VEHICLE CHARACTERISTICS IN THESE STANDARDS REPRESENT A SUITABLE DESIGN VEHICLE AND DO NOT ACCOUNT FOR ALL VARIATIONS IN VEHICLES DIMENSIONS/SPECIFICATIONS AND/OR DRIVER ABILITY AND BEHAVIOURS



	meters
Width	: 2.30
Track	: 2.30
Lock to Lock Time	: 6.0
Steering Angle	: 38.1

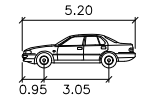


GENERAL NOTES

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SWEEP PATH KEY:

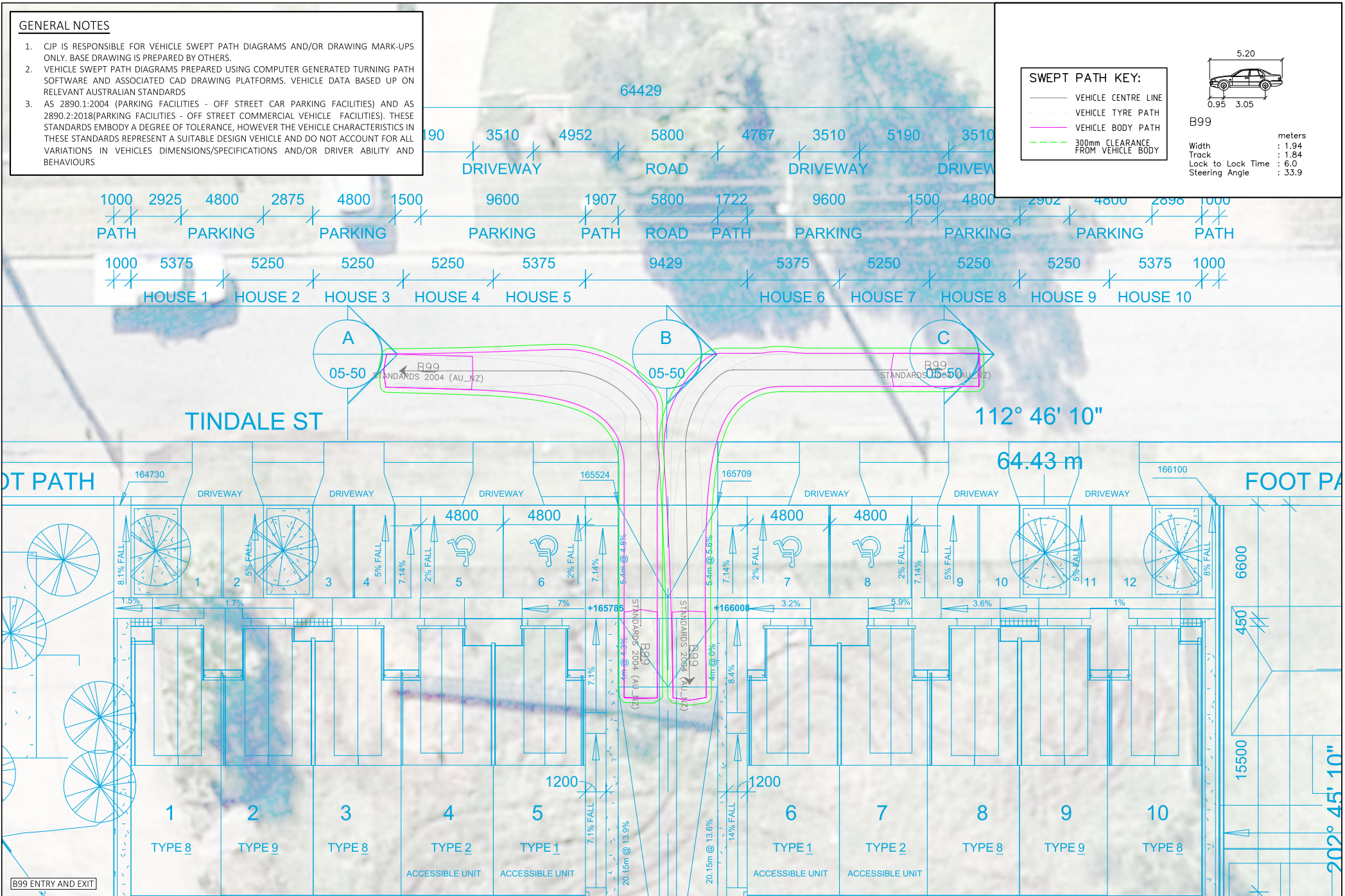
- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY



B99

Width : 1.94
Track : 1.84
Lock to Lock Time : 6.0
Steering Angle : 33.9

metres



Revised by Administrator

CJP CONSULTING ENGINEERS

CJP Consulting Engineers
PO Box 1184
Hunters Hill NSW 2110
M: 0415 256 233
E: info@cjpconsultingengineers.com.au

PRELIMINARY PLAN

FOR DISCUSSION PURPOSES
ONLY SUBJECT TO CHANGE
WITHOUT NOTIFICATION

WARNING

THE LOCATION OF UNDERGROUND SERVICES
ARE APPROXIMATE ONLY
THE EXACT LOCATION SHALL BE PROVIDED ON SITE
ALL EXISTING SERVICES SHOWN ARE NOT GUARANTEED

59 TINDALE STREET, MUSWELLBROOK
CAR PARK COMPLIANCE REVIEW
SWEEP PATH ASSESSMENT



SCALE 0 20 40 1:200 @ A3

DRAWING NO. 22049-D01-V1

SHEET NO. 02 OF 04

ISSUE DATE 22 February 2023

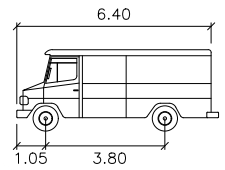
DRAWN BY J.PU
REVIEWED BY C.PALMER

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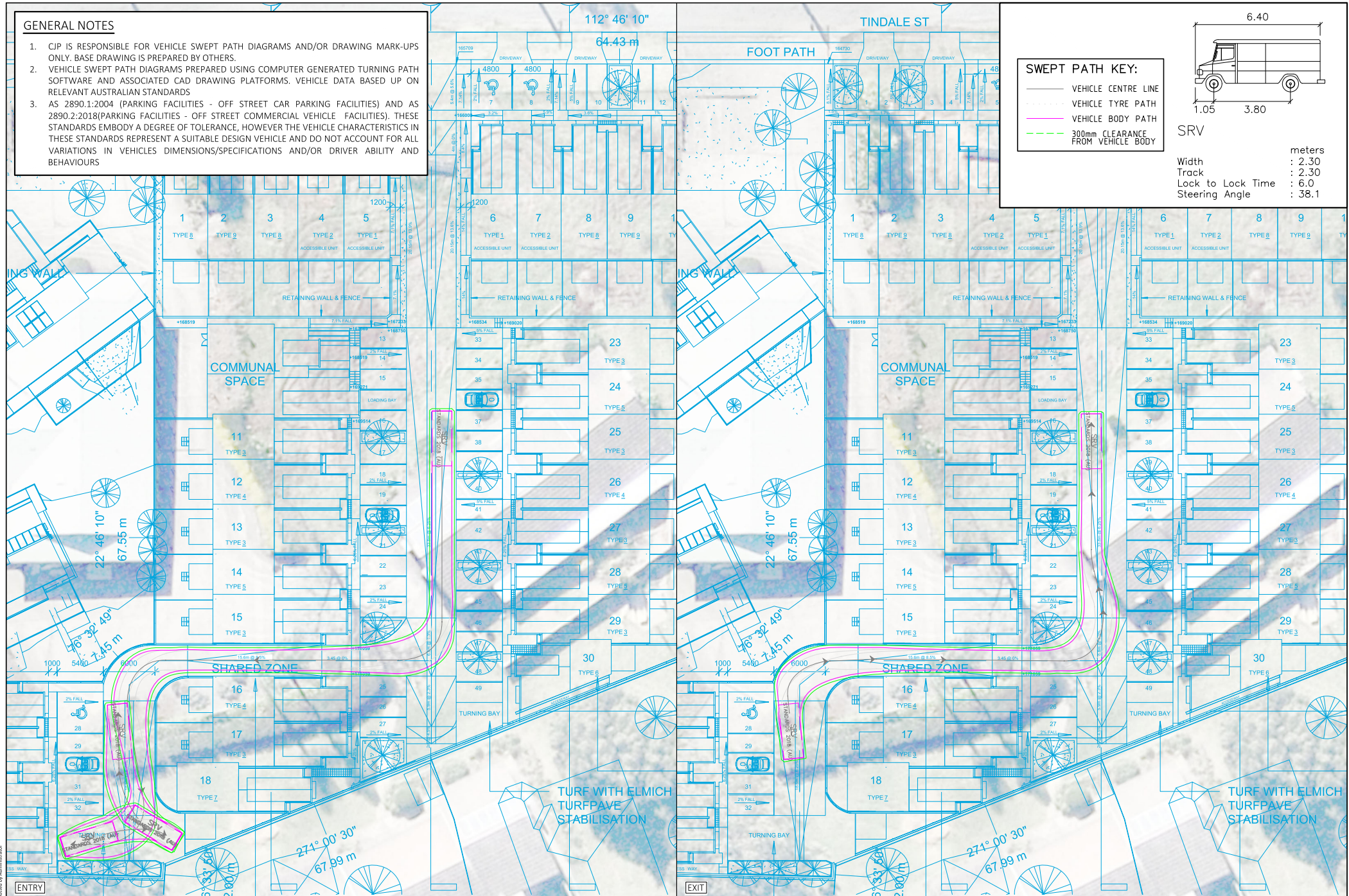
SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY



SRV

Width	: 2.30
Track	: 2.30
Lock to Lock Time	: 6.0
Steering Angle	: 38.1

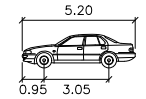


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- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY



B99

Width	1.94
Track	1.84
Lock to Lock Time	6.0
Steering Angle	33.9

meters

