TRAFFIX
TRAFFIC AND TRANSPORT PLANNERS

TRAFFIC IMPACT ASSESSMENT (TIA)

Uniting Shellharbour
Stage 1 Residential Detailed Development Application Submission

Reference: 23.457r01v06
Date: May 2025

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DOCUMENT VERIFICATION

Job Number	23.457			
Project	Uniting Shellharbour – Stage 1 DA			
Client	Midson Group Pty Ltd			
Revision	Date	Prepared By	Checked By	Signed
v06	22/05/25	Andrew Baraket	Justin Pindar	

TRAFFIX

CONTENTS

1. INTRODUCTION

TRAFFIX has been commissioned by Midson Group Pty Ltd to undertake a traffic impact assessment (TIA) in support of a development application (DA) relating to a senior housing development at 171 Wattle Road, Shellharbour known as Uniting Shellharbour. The development is located within the City of Shellharbour Local Government Area (LGA) and has been assessed under that Council's controls.

This report documents the findings of our investigations and should be read in the context of the Statement of Environmental Effects (SEE) prepared separately. The concept plan approval in relation to the original Masterplan DA, which included the Stage 1DA, was obtained in 2014 (DA331/2012).

The report is structured as follows:

- Section 2: Describes the site and its location
- Section 3: Documents existing traffic conditions
- Section 4: Describes the proposed development
- Section 5: Assesses the parking requirements
- Section 6: Assesses traffic impacts
- Section 7: Discusses access and internal design aspects
- Section 8: Presents the overall study conclusions

2. LOCATION AND SITE

The subject site is known as 171 Wattle Road, Shellharbour City Centre (Lot 2 of DP1043053) and is located on the western side of Wattle Road, about 200 metres south of Lake Entrance Road. It is also located approximately 2.3 kilometres northeast of Oak Flats Railway Station, 3.0 kilometres north of Shellharbour Junction Railway Station and 85.0 kilometres south of the Sydney CBD.

Stage 1 DA currently comprises a vacant lot with access provided via Davey Close. It has an eastern frontage of approximately 440 metres to Wattle Road and a southern boundary of approximately 110 metres with the Department of Housing site. The Stage 1 DA site is located within the southern part of the wider site as shown in in **Figure 1**.

Vehicular access is currently provided to the subject site via Davey Close which also provides access to the Department of Housing Site at 14 Benson Avenue.

A Location Plan is presented in **Figure 1**, with a Site Plan presented in **Figure 2**. Reference should also be made to the Photographic Record presented in **Appendix A** which provides an appreciation of the general character of roads and other key attributes in proximity to the site.

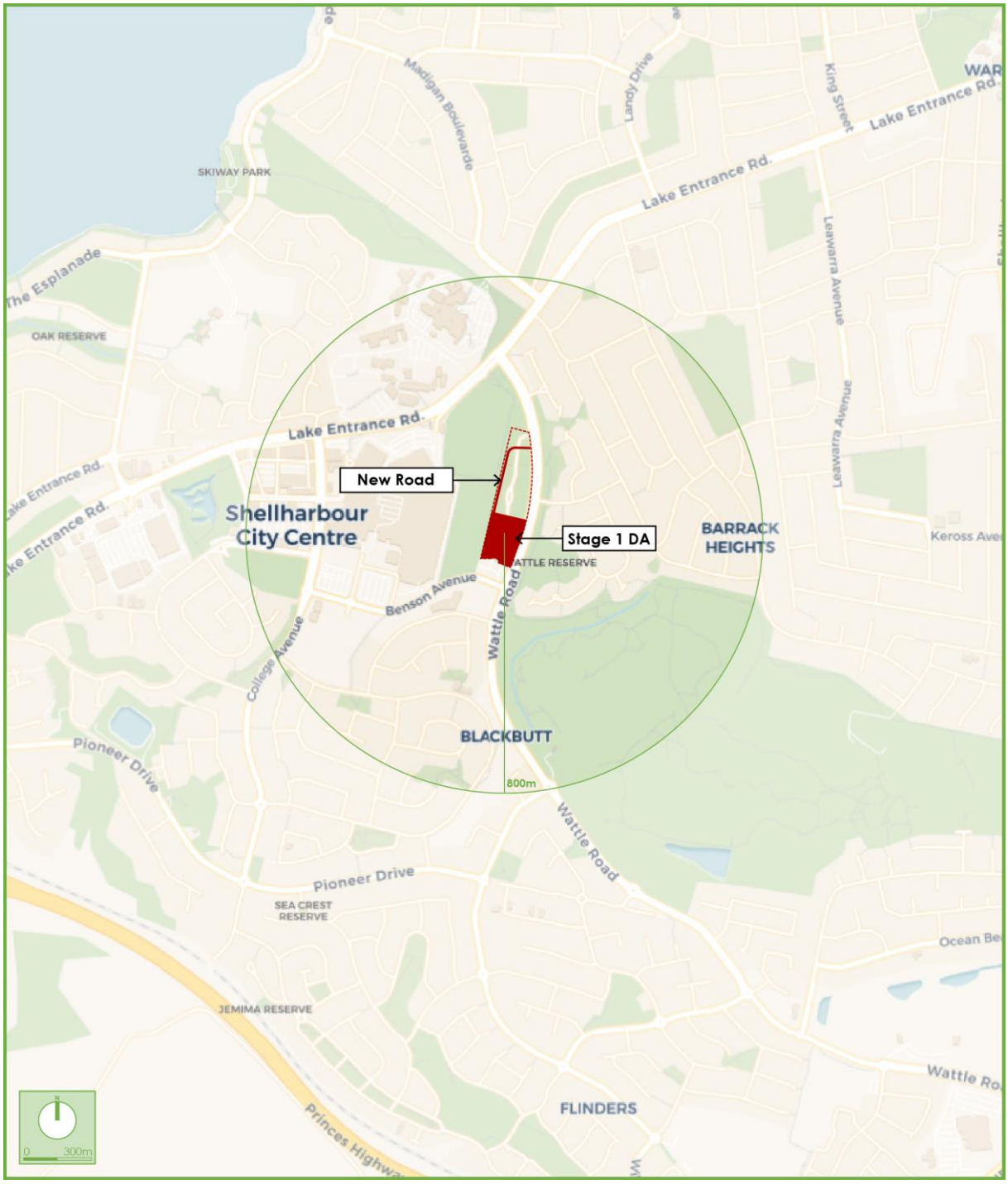


Figure 1: Location Plan

Figure 2: Site Plan

3. EXISTING TRAFFIC CONDITIONS

3.1 Road Network

The road hierarchy in the vicinity of the site is shown in **Figure 3** with the following roads of particular interest:

- Lake Entrance Road: an RMS Main Road (MR 611) that generally traverses east-west between the Princes Highway in the west and Shellharbour Road in the east. In the vicinity of the site, Lake Entrance Road is subject to 70km/h speed zoning and is constructed with a divided carriageway generally consisting of three traffic lanes in either direction. Parking is prohibited along both sides.
- Wattle Road: a local road that generally traverses north-south between Lake Entrance Road in the north and Shellharbour Road in the south. It is subject to a 60km/h speed zoning. Wattle Road is constructed with a divided carriageway and accommodates two lanes of traffic in either direction. Parking is prohibited along both sides of Wattle Road.
- Benson Avenue: a local road that generally traverses east-west direction College Avenue in the west and Wattle Road in the east. It is subject to 50km/h speed zoning and carries a single lane of traffic in each direction within an undivided carriageway in the vicinity of the subject site. Kerbside parking is generally not provided along either side of Benson Avenue in the vicinity of the subject site.
- Davey Close: a local road that is part of the overall subject site and under the ownership of Uniting with Right of Way access to the adjacent Department of Housing site. Davey Close traverses north-south through the wider subject site between Wattle Road in the north and a cul-de-sac in the south. It is subject to a 50km/h speed zoning and accommodates two-way traffic flow. There are no parking restrictions currently in place along either side of Davey Close.

It can be seen from **Figure 3** below that the subject is conveniently located with respect to the surrounding road network with connectivity provided to the north and south via Wattle Road which connects with Lake Entrance Road to the north and the wider road network to the south.

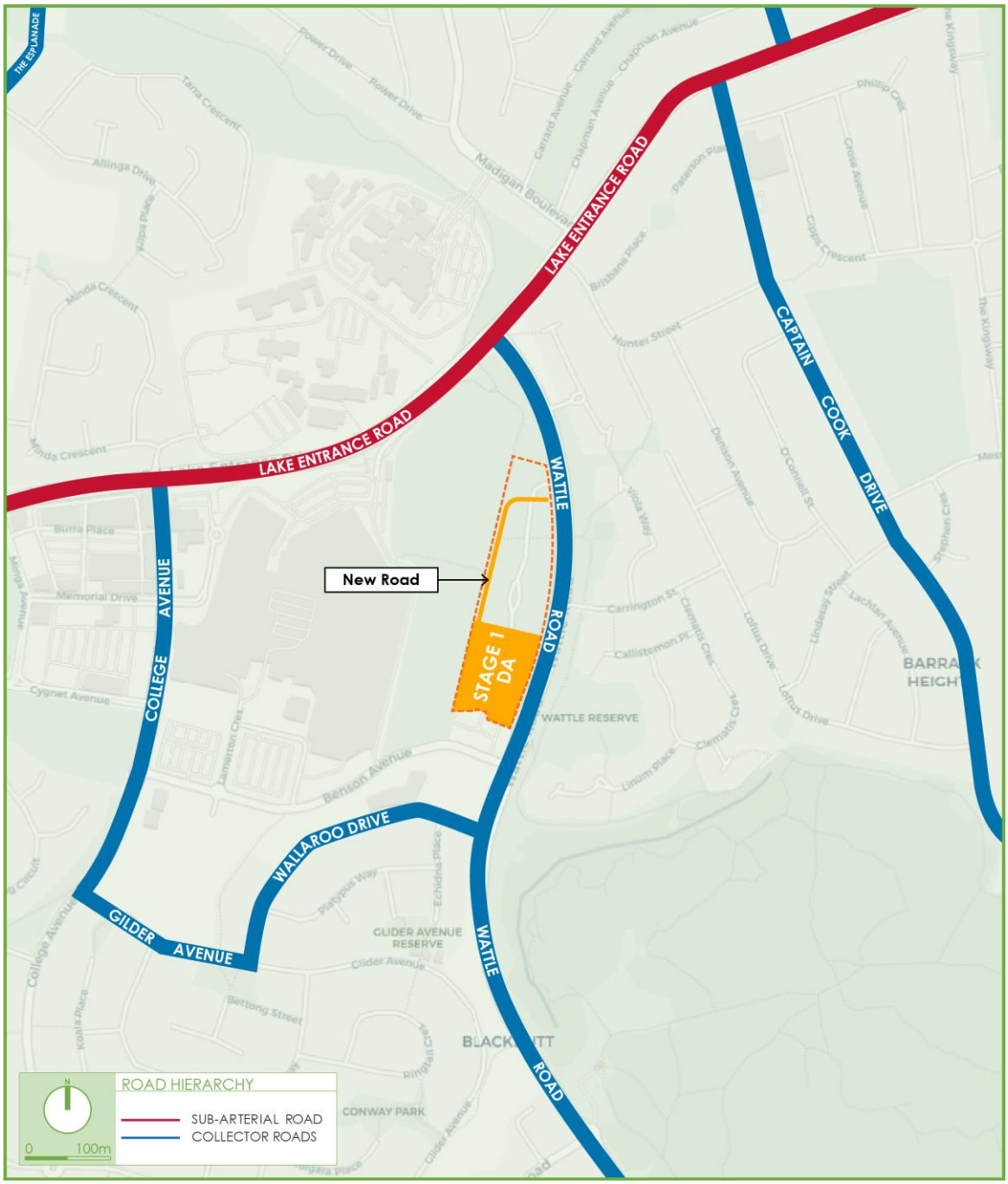


Figure 3: Road Hierarchy

3.2 Public Transport

The existing bus services that operate in the locality are shown in **Figure 4**. It is evident the subject development benefits from good bus services with multiple bus stops within 400m of the site. These services provide connections to key centres including Shellharbour, Wollongong, Barrack Point, and Albion Park providing frequent services during the weekday peak hour periods.

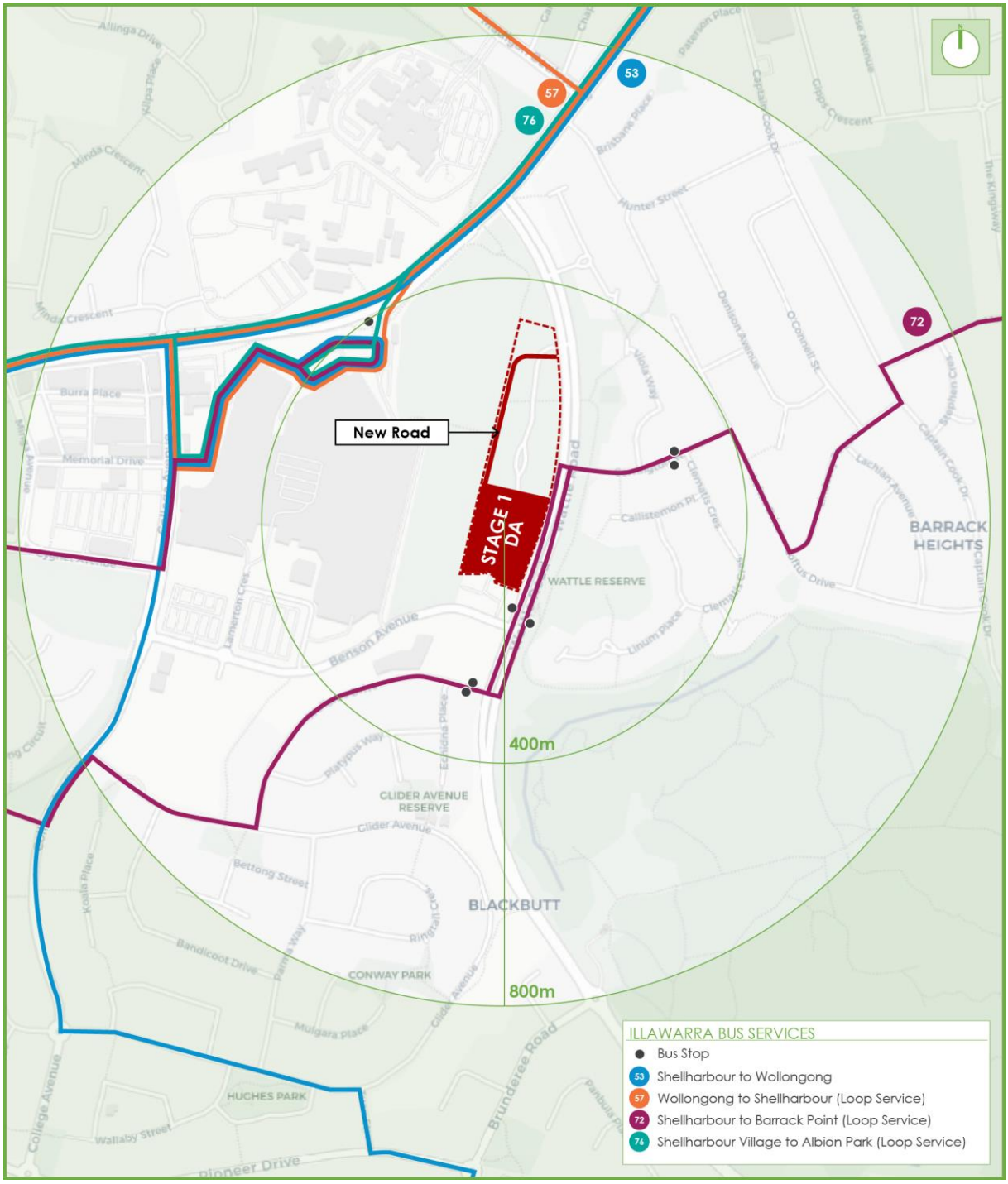


Figure 4: Public Transport

4. DESCRIPTION OF PROPOSED DEVELOPMENT

A detailed description of the proposed development is provided in the Statement of Environmental Effects prepared separately. In summary, the development for which approval is now sought is a senior living development (Stage 1 DA) comprising the following components:

- 152 independent Living Units comprising:
  - 32 x one-bedroom units; and
  - 101 x two-bedroom units; and
  - 19 x three-bedroom units.
- Two separate carparks. Each carpark is accessed independently with separate vehicular accesses as follows:
  - Ground Level Carpark
  - Level 2 Carpark
- 149 parking spaces provided within internal carparks, as follows:
  - 31 x accessible residential car parking spaces
  - 110 x standard residential car parking spaces
  - 8 x residential car parking spaces
- 8 x external visitor spaces
- 1x car wash bay
- 1 x loading dock
- 1 x village bus bay
- A maximum of 10 staff onsite at any one time.

The parking and traffic impacts arising from the development are discussed in **Section 5** and **Section 6**. Reference should be made to the plans submitted separately to Council which are presented at reduced scale in **Appendix B**.

5. PARKING REQUIREMENTS

5.1 Car Parking

Chapter 13 Section 13 Table 13.1 of the Shellharbour DCP defers to *SEPP (Seniors) 2004* in determining parking requirements for Seniors Housing. *SEPP (Seniors) 2004* has been superseded by SEPP (Housing) 2021 which has been adopted for this assessment. *SEPP (Housing) 2021* provides requirements for self-contained dwellings *under Part 5, Division 7, Clause 108(j)* as summarised in **Table 1** below. It is emphasised the below rate outlines the minimum requirements which, if complied with, prevent the consent authority from requiring more onerous standards. It is noteworthy that Uniting is a Social Housing Provider as defined under *SEPP (Housing) 2021*.

Table 1: SEPP (Housing) 2021 Car Parking Rates and Provisions

Type	Number	Minimum Parking Rate	Minimum Spaces Required	Spaces Provided
Dwellings*	152	0.2 spaces per dwelling	30.4 (30)	149

**The subject development is a social housing provider and is therefore subject to a parking rate of 1 space for every 5 dwellings in accordance with SEPP (Housing) 2021.*

It is evident from **Table 1** the proposed development requires a minimum of 30 parking spaces under SEPP *(Housing) 2021*. In response, 149 parking spaces have been provided thereby exceeding *SEPP (Housing) 2021)* parking requirements.

Furthermore, Council's DCP states that additional parking may be required for the self-contained dwellings' as follows:

- 2 visitor parking spaces / 7 self-contained dwellings for developments comprising of 9 or more self-contained dwellings.
- 1 space / 2 persons to be employed in connection with the development.

Based on the above, additional visitor and staff car parking spaces could be provided as follows:

- 43 visitor spaces
- 5 staff spaces

Therefore, a minimum of 78 parking spaces would be required if *SEPP (Housing) 2021* and Council's DCP requirements were to be fully complied with. In response, 149 spaces are provided, thereby ensuring that all parking demands are readily accommodated onsite with no reliance on on-street parking.

5.2 Accessible Parking

SEPP (Housing) 2021 Schedule 4 Part 1 Clause 4(c) provides accessible parking requirements as follows;

- at least 15% of the parking spaces must comply with AS2890.6, and
- at least 50% of the parking spaces must---
  - (A) comply with AS2890.6, or
  - (B) be at least 3.2m wide and have a level surface with a maximum gradient of 1:40 in any direction.

Application of the above rates to the required 30 car parking spaces results in an accessible parking requirement of 20 spaces. In response, 31 accessible parking spaces have been provided in accordance with AS2890.6 thereby exceeding the minimum requirements of *SEPP (Housing) 2021*.

It is emphasised that based on extensive operator experience manging other similar Independent Living developments there is demonstrated demand for additional parking spaces above minimum SEPP parking requirements to provide the necessary flexibility whereby ILU residents may only require a standard parking space during initial years of residence and then require widened spaces (i.e. minimum 3.2m wide spaces) during later years of residence. The provision of additional accessible spaces above minimum SEPP parking requirements meets the demonstrated commercial requirements of the operator based on its extensive experience operating similar developments by providing the necessary flexibility and adaptability in catering for all residential parking demands.

5.3 Bicycle Parking

Council's DCP does not provide bicycle parking rates for Independent Living Units. Notwithstanding, it is envisaged that all residential bicycle parking requirements can be accommodated within residential storage cages provided within the ground floor carpark thereby ensuring that all residential bicycle parking demands are readily accommodated onsite.

5.4 Motorcycle Parking

Council's DCP does not specify motorcycle parking requirements for Independent Living Units. As such, the development does not provide motorcycle parking spaces as is permitted under Council's DCP. However, it is evident that all motorcycle parking demands can be readily accommodated within an available car parking space thereby ensuring that any motorcycle parking demands are readily accommodated onsite.

5.5 EV Charging Stations

Council's DCP does not require electric vehicle charging stations for seniors housing facilities. Notwithstanding, the development provides two EV charging stations provided within the Ground Level and Level 2 carparks.

5.6 Mobility Scooter Charging Stations

Section 16.6.2 of Council's DCP requires that seniors housing facilities *"will require at least one or two charging points and associated storage spaces"* for mobility scooters. In response the development provides two charging points located within the Ground Level and Level 2 carparks, thereby meeting Council's minimum DCP requirements.

5.7 Car Wash Bay

Section 13.2.18 of Council's DCP requires that residential developments with 20 dwellings or more provide a designated car washing facility. In response the development provides a dedicated car wash bay within the ground level car park, thereby satisfying Council's DCP.

5.8 Refuse Collection and Servicing

A loading bay which can accommodate vehicles up to 8.8m MRV's is located on the ground level with access provided via Road no.1 from which all waste collection and loading activities is to be undertaken. Reference should be made to the swept path analysis provided in **Appendix C**.

6. TRAFFIC AND TRANSPORT IMPACTS

The subject development forms part of the wider (approved) Concept Plan DA (DA331/2012) which assessed traffic impacts in relation to the surrounding road network and included an assessment of traffic impacts in relation to the Stage 1 DA. The subject Stage 1 DA is consistent with the Concept Plan DA in terms of scale, site access locations, development yield and traffic impacts and has therefore been assessed to operate satisfactory with no traffic impacts above approved levels as per the Concept Plan 331/2012 approval. A review of available aerial photography demonstrates the surrounding road network has not changed from 2012 when the Concept Plan DA (DA331/2012) was approved, and the surrounding road network will continue to operate satisfactorily in accordance with existing approvals in this regard.

7. ACCESS AND INTERNAL DESIGN ASPECTS

7.1 Site Vehicular Access

7.1.1 Stage 1DA Building Access

The subject development provides two (2) separate carparks each containing between 25-100 parking spaces with vehicular access provided via local roads internal to the wider site. Each carpark therefore requires a Category 1 driveway under AS2890.1 (2004), being a combined entry and exit width of 3.0 metres to 5.5 metres or a separated entry and exit driveway each with a minimum width of 3.0 metres. In response, the following access driveways have been provided:

- Separated 4.7m entry driveway / 4.7m exit driveway via the subject site's western frontage.
- Separated 3.0m entry driveway / 3.0m exit driveway via the subject site's southern frontage.

Reference should be made to the swept path analysis provided in **Appendix E** showing the satisfactory operation of the proposed access driveways to general parking areas.

7.1.2 Stage 1DA Service Vehicle Access

The development proposes a loading dock separate from the general parking areas to minimise conflicts as shown in **Figure 5**. Therefore, a separate servicing access is proposed facilitating access to the loading dock via the western frontage. The following loading access driveway has been provided via the western side of the subject site to service the onsite loading dock:

- Combined 5.1m loading dock driveway via the subject site's western frontage.

A swept path analysis of the largest vehicle requiring access to the loading dock being an 8.8m MRV is provided in **Appendix E**, demonstrating satisfactory operation of the proposed loading dock access driveway.

Figure 5 – Loading Area & Carpark Entry

7.1.3 Internal Roads

Reference should be made to the S4.55 Modification Traffic Impact Statement in relation to minor changes proposed to the internal road layout which accesses the wider Uniting site and the surrounding public road network.

7.2 Internal Design

The internal car park complies with the requirements of AS 2890.1 (2004), AS2890.2 (2018) and AS 2890.6 (2022), and the following characteristics are noteworthy:

7.2.1 Parking Modules

- All accessible parking spaces have been designed in accordance with AS 2890.6 (2022) as required by *SEPP (Housing) 2021*, being 2.4m wide, 5.4m long and situated immediately adjacent to a dedicated shared area or the circulating aisle.
- All standard car parking spaces have been designed in accordance with User Class 1A being for residential / employee parking. These spaces are provided with a minimum space length of 5.4m, a minimum width of 2.4m and a minimum aisle width of 5.8m.
- All spaces located adjacent to obstructions of greater than 150mm in height are provided with an additional width of 300mm.
- Dead-end aisles are provided with the required 1.0m aisle extension in accordance with **Figure 2.3** of AS2890.1 (2004).
- Reference should be made to the swept path analysis showing the satisfactory operation of the Bus Parking Area.

7.2.2 Ramps

- All internal ramps and gradients comply with AS2890.1(2004) for light vehicles and AS2890.2(2018) for commercial vehicles.

7.2.3 Clear Head Heights

- A minimum clear head height of 2.2m is provided for all areas within the basement car park as required by AS 2890.1 (2004).
- A minimum clear head height of 2.5m is provided above all accessible spaces in accordance with AS 2890.6 (2022).
- A minimum clear head height of 4.5m has been provided above the loading area and all areas traversed by commercial vehicles.

7.2.4 Loading

- The loading bay has been provided in accordance with AS2890.2 (2018). Reference should be made to the swept path analysis presented in **Appendix B** showing the satisfactory operation of the loading bay/access.

7.2.5 Other Considerations

- All columns are located outside of the parking space design envelope shown in **Figure 5.2** of AS 2890.1 (2004).
- Visual splays have been provided at each access driveway in accordance with **Figure 3.3** of AS 2890.1 (2004) and Figure 3.4 of AS 2890.2(2018).
- Reference should be made to the swept path analysis presented in **Appendix B** showing the satisfactory operation of the minim bus loading bay and internal roadways.

7.3 Summary

In summary, the internal configuration of the car park has been designed in accordance with AS 2890.1 (2004), AS 2890.2 (2018) and AS 2890.6 (2022). It is however envisaged that a condition of consent would be imposed requiring compliance with these standards and as such any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.

8. CONCLUSIONS

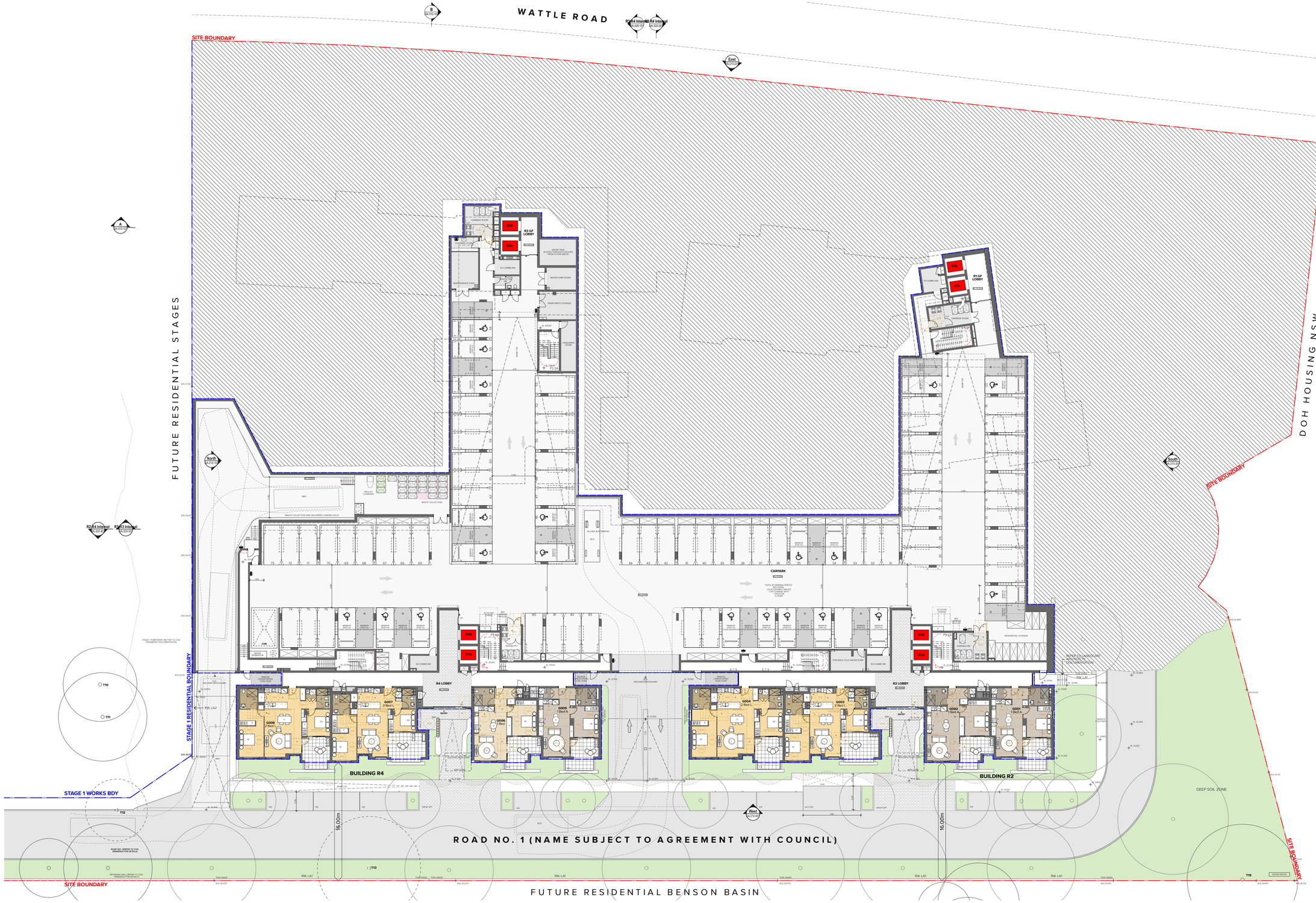
In summary:

- The proposal seeks approval to construct a Seniors living facility located at 171 Wattle Road, Shellharbour containing 152 independent living units as part of the first residential stage (Stage 1 DA) of the approved concept plan that was obtained in 2014 (DA 331/2012).
- The subject site is well connected to the public transport network with reliable access to regular bus and rail services. These, along with existing pedestrian and cycle links, ensure the site is ideally situated as it provides a good opportunity to encourage future residents to use sustainable transport modes.
- The proposed development provides 149 parking spaces thereby exceeding the minimum requirements of *SEPP (Housing) 2021* and Shellharbour Council's DCP and all accessible, visitor and staff parking and loading/servicing requirements are accommodated onsite as discussed in **Section 5**.
- The subject Stage 1 DA is consistent with the Concept Approval (DA331/2012) DA in terms of proposed development yield and related traffic impacts and is therefore considered satisfactory with no additional traffic impacts above approved levels as assessed in the Concept Approval (DA331/2012) DA.
- The basement car park has been assessed to comply with the requirements of AS 2890.1 (2004), AS 2890.2 (2018) and AS 2890.6 (2022).

This traffic impact assessment therefore demonstrates that the subject application is supportable on traffic planning grounds.

APPENDIX A

Reduced Plans



LEGEND

ACU	Air Conditioning Condenser
ACC	Accessible
ADP	Adaptable
AHD	Australian Height Datum
AL	Aluminium
AMB	Ambulant
AWN	Awning
B	Bathroom
B1,2...	Bedroom 1, Bedroom 2, etc.
BAL	Balustrade
BL	Bollard
BOH	Back of House
BWK	Brickwork
BY	Balcony
CFC	Compressed Fibre Cement
CL	Centre Line
CLD	Cladding
CLF	Chainlink Fence
CLNR	Cleaner Store
COF	Concrete Off-Form Finish
COL	Column
COMS	Communications Services
CP	Carparking Space
CPD	Cupboard
CPE	Car Park Exhaust
CR	Card Reader
CWY	Covered Walkway
CWB	Car Wash Bay
D	Dining
DB	Distribution Board
DP	Down Pipe
DWF	Decorative Wall Finish
E	Entry
ELEC	Electrical Services
EN	Ensuite
(EX)	Existing
EXH	Exhaust
F	Fire Services
FEP_01,02..	Fire Egress Passage No.01, 02, et
FEX	Fire Extinguisher
FFL	Finished Floor Level
FG	Fixed Glass
FGL	Finished Ground Level
FH	Fire Hydrant
FHR	Fire Hose Reel
FIP	Fire Indicator Panel
FMP	Fire Mimic Panel
FOH	Front of House
FS_01,	Fire Stair No.1, 2, etc.
FW	Floor Waste
GBC	Garbage Chute
GBR	Garbage Room
GC	Glass Clear
GDR	Grated Drain
GHR	Garbage Holding Room
GL	Ground Line
GLS	Glass
GPT	Gross Pollutant Trap
GR	Grab Rail
GT	Glass, Translucent
GVL	Gravel
H	Hydraulic Services
HR	Handrail
HRV	Heavy Rigid Vehicle
HWU	Hot Water Unit
K	Kitchen
KB	Kerb
L_01,	Lift No.1, 2, etc.
L	Living
LG	Lower Ground
LV	Louvre
LY	Laundry
M	Mechanical Services
MBX	Mail Box Assembly
MH	Manhole
MSB	Main Switch Board
MTR	Meter
MV	Mechanical Vent
NGL	Natural Ground Level
NOM	Nominal
(O)	Operable
OSD	On Site Detention Tank
P	Pantry
PB	Plasterboard
PCF	Powder Coat Finish
PD	Pivot Door
PER	Pergola
PF	Paint Finish
PLD	Panel Lift Door
PV	Paving
R	Robe
RA	Return Air
RES	Residential
RL	Relative Level to AHD
RWO	Rainwater Outlet
S	Storage
SA	Supply Air
SB	Splash Back
SCN	Screen
SCOL	Steel Column
SD	Sliding Door
SFF	Stone Floor Finish
SGN	Signage
SHR	Shower
SHRS	Shower Seat
SIM	Similar
SKL	Skylight
SL	Static Line
SMD	Smoke Door
SNK	Sink
SOP	Set Out Point
SPD	Spoon Drain
(SR)	Semi Recessed
SS	Stainless Steel
SSCN	Shower Screen
SSD	Sub-Surface Drainage System
SSL	Structural Slab Level
STY	Study
SWD	Stormwater Drain
SWF	Stone Wall Finish
SWP	Stormwater Pit
TCE	Terrace
TD	Timber Deck
TFF	Timber Floor Finish
TGSI	Tactile Ground Surface Indicator
TH	Threshold
TOW	Top of Wall
TV	Television
TYP	Typical
U/G	Underground
U/S	Underside
UG	Upper Ground
UNO	Unless Noted Otherwise
UT	Utility Space
UR	Urinal
V	Void
VIS	Visitor
VP	Vent Pipe
WC	WC
WC_A	WC - Accessible
WC_F	WC - Female
WC_M	WC - Male
WC_P	WC - Parents
WC_U	WC - Unisex
WF	Wall Finish
WIR	Walk in Robe
WM	Washing Machine
WS	Wheel Stop

Boundary
Stage 01 Works
S4.55 Building Envelope
Building Line Over
Residential Entry
Carpark Entry

Demolished Tree
Ex Retained Tree
New Tree

NOTES

1. Refer to Landscape documentation for public domain and landscape areas for further information regarding materials and finishes selection.
2. Refer to Architectural Design Report for further information
3. Refer to Cover Sheet for BASIX commitments and BASIX report for further information

CLIENT

UNITING
222 Pitt Street
Sydney 2000 NSW

Building Separation Notes:
* Screening added to provide visual privacy to balconies
** Habitable to non-habitable condition (9m min)
As indicated on the plans.

Rev	Date	Approved by	Revision Notes
E	23.08.24		For Consultant Coordination
F	30.08.24		For Final Review
G	9/9/2024	CM	For Consultant Coordination
H	01.11.24	CM	For DA Submission
I	5/11/2024	CM	For DA Submission
J	15.11.24	CM	For DA Submission

Project Title
Shellharbour Uniting
171 Wattle Road Shellharbour NSW 2529 Australia

Drawing Title — Refer drawing list for corresponding planning approval drawing name
GA Plans
Ground Level (Level 1 in s4.55)

Scale	Project No.	Drawn by	North
1:250 @A1, 50%@A3	21067	JS,VT,LF,CR,BE	
Status	Dwg No.	Rev	
For DA Submission	DA-110-009	J	

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LEGEND

ACU	Air Conditioning Condenser	**CFC**	Compressed Fibre Cement	**D**	Dining	**FGL**	Finished Ground Level	**GLS**	Glass	**LV**	Louvre	**PCF**	Powder Coat Finish	**SCN**	Screen	**(SR)**	Semi Recessed	**TOW**	Top of Wall
ACC	Accessible	**CL**	Centre Line	**DB**	Distribution Board	**FH**	Fire Hydrant	**GPT**	Gross Pollutant Trap	**LY**	Laundry	**PD**	Pivot Door	**SCOL**	Steel Column	**SS**	Stainless Steel	**TV**	Television
ADP	Adaptable	**CLD**	Cladding	**DP**	Down Pipe	**FHR**	Fire Hose Reel	**GR**	Grab Rail	**M**	Mechanical Services	**PER**	Pergola	**SD**	Sliding Door	**SSCN**	Shower Screen	**TYP**	Typical
AHD	Australian Height Datum	**CLF**	Chainlink Fence	**DWF**	Decorative Wall Finish	**FIP**	Fire Indicator Panel	**GT**	Glass, Translucent	**MBX**	Mail Box Assembly	**PF**	Paint Finish	**SFF**	Stone Floor Finish	**SSD**	Sub-Surface Drainage System	**U/G**	Underground
AL	Aluminium	**CLNR**	Cleaner Store	**E**	Entry	**FMP**	Fire Mimic Panel	**GVL**	Gravel	**MH**	Manhole	**PLD**	Panel Lift Door	**SGN**	Signage	**SSL**	Structural Slab Level	**U/S**	Underside
AMB	Ambulant	**COF**	Concrete Off-Form Finish	**ELEC**	Electrical Services	**FOH**	Front of House	**H**	Hydraulic Services	**MSB**	Main Switch Board	**PV**	Paving	**SHR**	Shower	**STY**	Study	**UG**	Upper Ground
AWN	Awning	**COL**	Column	**EN**	Ensuite	**FS_01.**	Fire Stair No.1, 2, etc.	**HR**	Handrail	**MTR**	Meter	**R**	Robe	**SHRS**	Shower Seat	**SWD**	Stormwater Drain	**UNO**	Unless Noted Otherwise
B	Bathroom	**COMS**	Communications Services	**(EX)**	Existing	**FW.**	Floor Waste	**HRV**	Heavy Rigid Vehicle	**MV**	Mechanical Vent	**RA**	Return Air	**SIM**	Similar	**SWF**	Stone Wall Finish	**UT**	Utility Space
B1,2...	Bedroom 1, Bedroom 2, etc.	**CP**	Carparking Space	**EXH**	Exhaust	**GBC**	Garbage Chute	**HWU**	Hot Water Unit	**NGL**	Natural Ground Level	**RES**	Residential	**SKL**	Skylight	**SWP**	Stormwater Pit	**UR**	Urinal
BAL	Balustrade	**CPD**	Cupboard	**F**	Fire Services	**GBR**	Garbage Room	**K**	Kitchen	**NOM**	Nominal	**RL**	Relative Level to AHD	**SL**	Static Line	**TCE**	Terrace	**V**	Void
BL	Bollard	**CPE**	Car Park Exhaust	**FEP_01.02.**	Fire Egress Passage No.01, 02, et	**GC**	Glass Clear	**KB**	Kerb	**(O)**	Operable	**RWO**	Rainwater Outlet	**SMD**	Smoke Door	**TD**	Timber Deck	**VIS**	Visitor
BOH	Back of House	**CR**	Card Reader	**FEX**	Fire Extinguisher	**GDR**	Grated Drain	**L_01.**	Lift No.1, 2, etc.	**OSD**	On Site Detention Tank	**S**	Storage	**SNK**	Sink	**TFF**	Timber Floor Finish	**VP**	Vent Pipe
BWK	Brickwork	**CWY**	Covered Walkway	**FFL**	Finished Floor Level	**GHR**	Garbage Holding Room	**L**	Living	**P**	Pantry	**SA**	Supply Air	**SOP**	Set Out Point	**TGSI**	Tactile Ground Surface Indicator	**WC**	WC
BY	Balcony	**CWB**	Car Wash Bay	**FG**	Fixed Glass	**GL**	Ground Line	**LG**	Lower Ground	**PB**	Plasterboard	**SB**	Splash Back	**SPD**	Spoon Drain	**TH**	Threshold	**WC_A**	WC - Accessible

WC_F	WC - Female	Boundary	Demolished Tree
WC_M	WC - Male	Stage 01 Works	Ex Retained Tree
WC_P	WC - Parents	S4.55 Building Envelope	New Tree
WC_U	WC - Unisex	Building Line Over	
WF	Wall Finish	Residential Entry	
WIR	Walk in Robe	Carpark Entry	
WM	Washing Machine		
WS	Wheel Stop		

NOTES

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171 Wattle Road Shellharbour NSW 2529 Australia

Drawing Title Refer drawing list for corresponding planning approval drawing name
GA Plans
Level 02 (Level 3 in s4.55)

Scale **1:250 @A1, 50%@A3**
Status **For DA Submission**
Project No. **21067**
Dwg No. **DA-110-020**
Drawn by **JS,VT,LF,CR,BE**
Rev **I**
North

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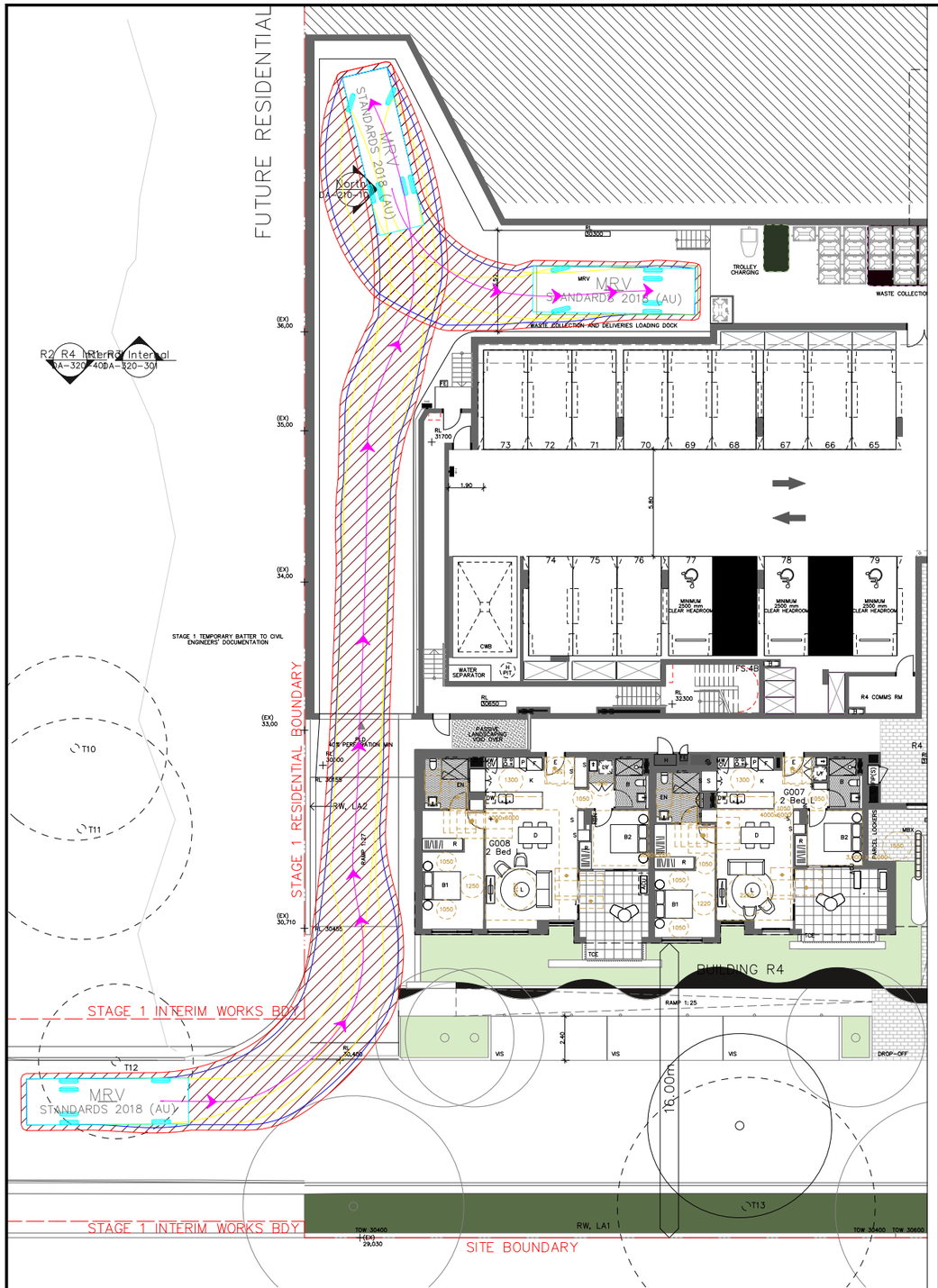
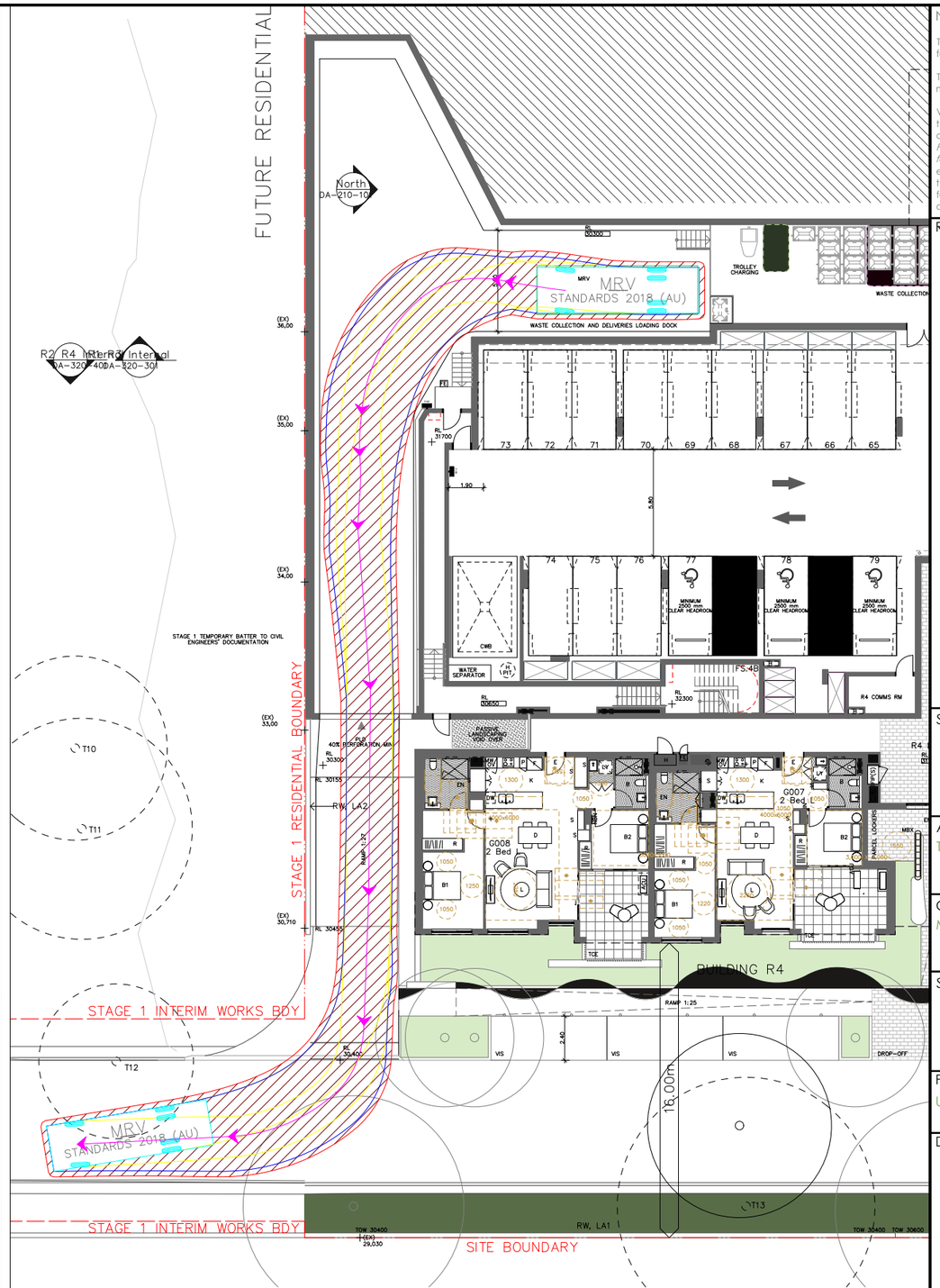
APPENDIX B

Swept Path Analysis





FC	Compressed Fibre Cement	CWB	Car Wash Bay	FG	Fixed Glass	GL	Ground Line
L	Centre Line	D	Dining	FGL	Finished Ground Level	GLS	Glass
LD	Cladding	DB	Distribution Board	FH	Fire Hydrant	GPT	Gross Pollutant Trap
LF	Chainlink Fence	DP	Down Pipe	FHR	Fire Hose Reel	GR	Grab Rail
LNR	Cleaner Store	DWF	Decorative Wall Finish	FIP	Fire Indicator Panel	GT	Glass, Translucent
OF	Concrete Off-Form Finish	E	Entry	FMP	Fire Mimic Panel	GVL	Gravel
OL	Column	ELEC	Electrical Services	FOH	Front of House	H	Hydraulic Services
OMS	Communications Services	EN	Ensuite	FS_01,	Fire Stair No.1, 2, etc.	HR	Handrail
P	Carparking Space	(EX)	Existing	FW	Floor Waste	HRV	Heavy Rigid Vehicle
PD	Cupboard	EXH	Exhaust	GBC	Garbage Chute	HWU	Hot Water Unit
PE	Car Park Exhaust	F	Fire Services	GBR	Garbage Room	K	Kitchen
R	Card Reader	FEP_01,02.	Fire Egress Passage No.0	GC	Glass Clear	KB	Kerb
WY	Covered Walkway	FEX	Fire Extinguisher	GDR	Grated Drain	L_01,	Lift No.1, 2, etc.
WB	Car Wash Bay	FFL	Finished Floor Level	GHR	Garbage Holding Room	L	Living

CLIENT

FC	Compressed Fibre Cement	CWB	Car Wash Bay	FG	Fixed Glass	GL	Ground Line
L	Centre Line	D	Dining	FGL	Finished Ground Level	GLS	Glass
LD	Cladding	DB	Distribution Board	FH	Fire Hydrant	GPT	Gross Pollutant Trap
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WY	Covered Walkway	FEX	Fire Extinguisher	GDR	Grated Drain	L_01,	Lift No.1, 2, etc.
WB	Car Wash Bay	FFL	Finished Floor Level	GHR	Garbage Holding Room	L	Living

CLIENT

Notes:

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TRAFFIX is responsible for vehicle swept path diagrams and/or drawing mark-ups only. Base drawing prepared by others.

Vehicle swept path diagrams prepared using computer generated turning path software and associated CAD drawing platforms. Vehicle data based upon relevant Australian Standards *(AS/NZS 2890.1:2004 Parking facilities - Off-street car parking,* and/or *AS2890.2:2002 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 vehicle dimensions / specifications and/or driver ability or behaviour.

Rev.	Revision Note	By.	Date

Swept Path Legend

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

Architect
Turner

Client
Midson Group Pty Ltd

Scale / Plan Orientation
0 1 2 3 4m
1:100 @ A3

Project Description
Uniting Shellharbour

Drawing Prepared By

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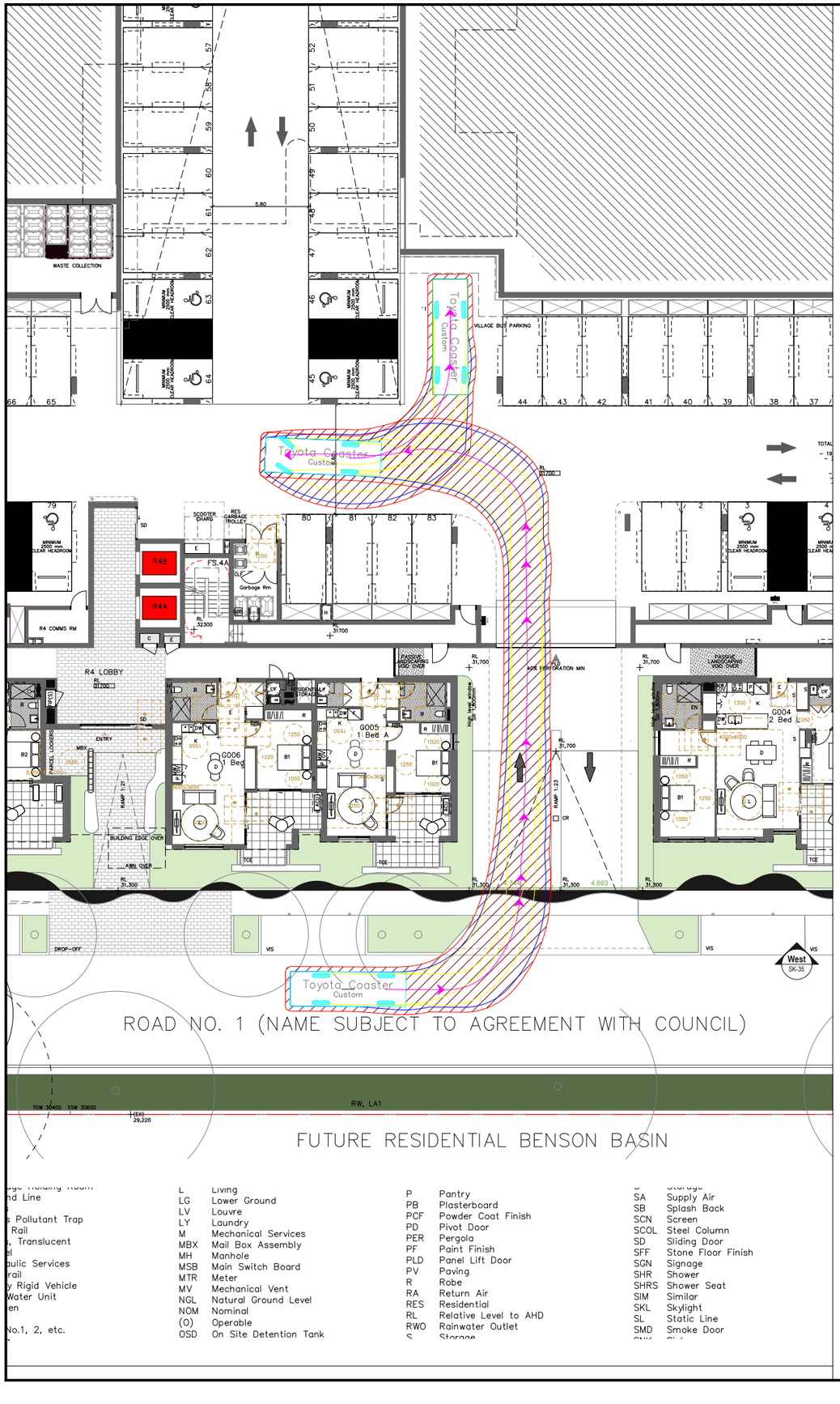
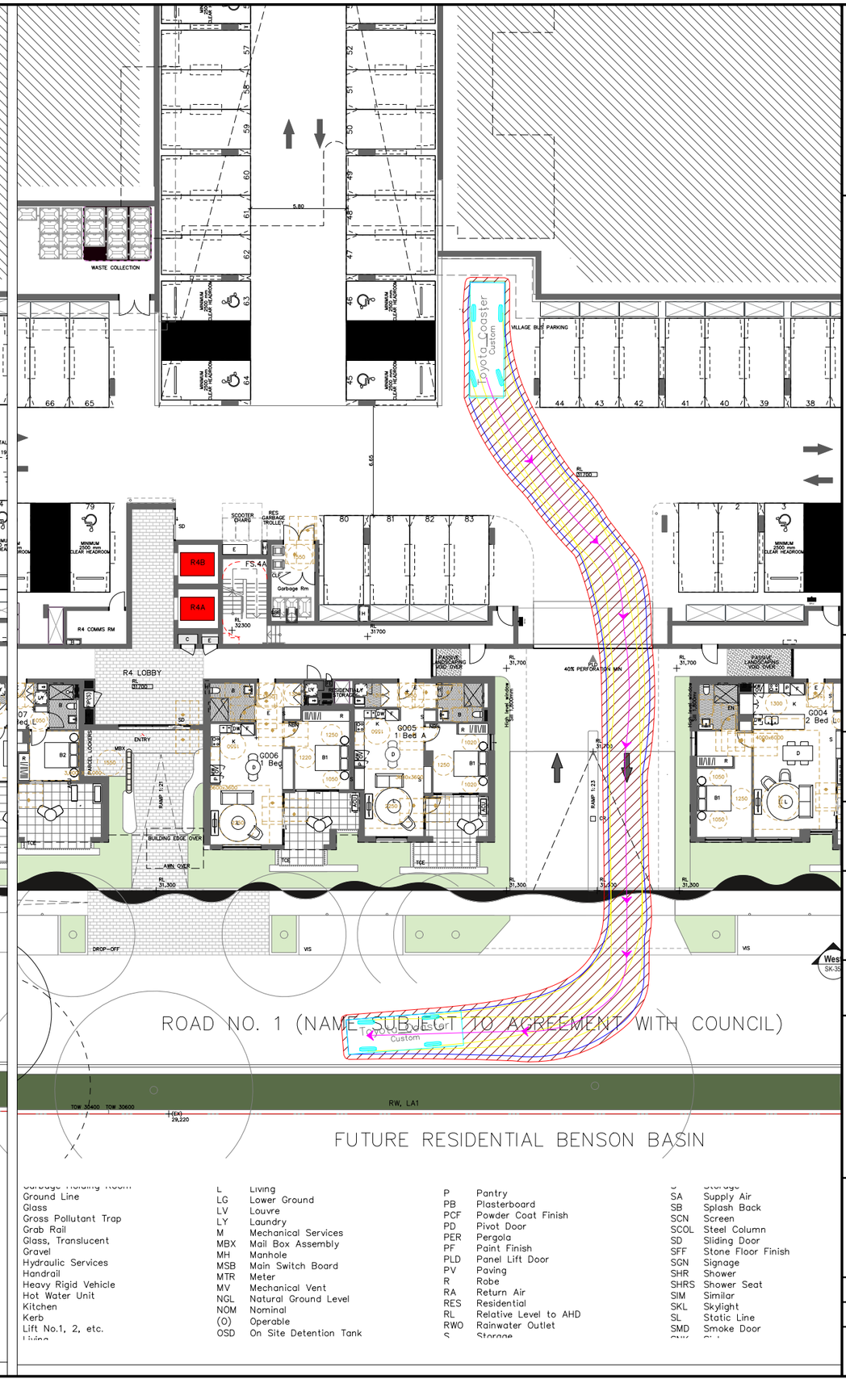
Drawing Title
Ground Floor Plan
Swept Path Analysis - Loading Dock
8.8m MRV
Left: Forward Entry Manoeuvre
Right: Forward Egress Manoeuvre

Drawn:	Checked:	Date:
AB	JP	09-09-24

23.457d08v01 TRAFFIX [240909 Plans] Design Review - Final Plans.dwg

Project No.	Drawing Phase	Drawing No.	Rev.
23.457	DA	TX.01	





Ground Line
Glass
Gross Pollutant Trap
Grab Rail
Glass, Translucent
Gravel
Hydraulic Services
Handrail
Heavy Rigid Vehicle
Hot Water Unit
Kitchen
Kerb
Lift No.1, 2, etc.

L Living
LG Lower Ground
LV Louvre
LY Laundry
M Mechanical Services
MBX Mail Box Assembly
MH Manhole
MSB Main Switch Board
MTR Meter
MV Mechanical Vent
NGL Natural Ground Level
NOM Nominal
(O) Operable
OSD On Site Detention Tank

P Pantry
PB Plasterboard
PCF Powder Coat Finish
PD Pivot Door
PER Pergola
PF Paint Finish
PLD Panel Lift Door
PV Paving
R Robe
RA Return Air
RES Residential
RL Relative Level to AHD
RWO Rainwater Outlet

SA Supply Air
SB Splash Back
SCN Screen
SCOL Steel Column
SD Sliding Door
SFF Stone Floor Finish
SGN Signage
SHR Shower
SHRS Shower Seat
SIM Similar
SKL Skylight
SL Static Line
SMD Smoke Door

Notes:

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Rev.	Revision Note	By.	Date

Swept Path Legend

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

Architect
Turner

Client
Midson Group Pty Ltd

Scale / Plan Orientation
0 1 2 3 4m
1:100 @ A3

Project Description
Uniting Shellharbour

Drawing Prepared By

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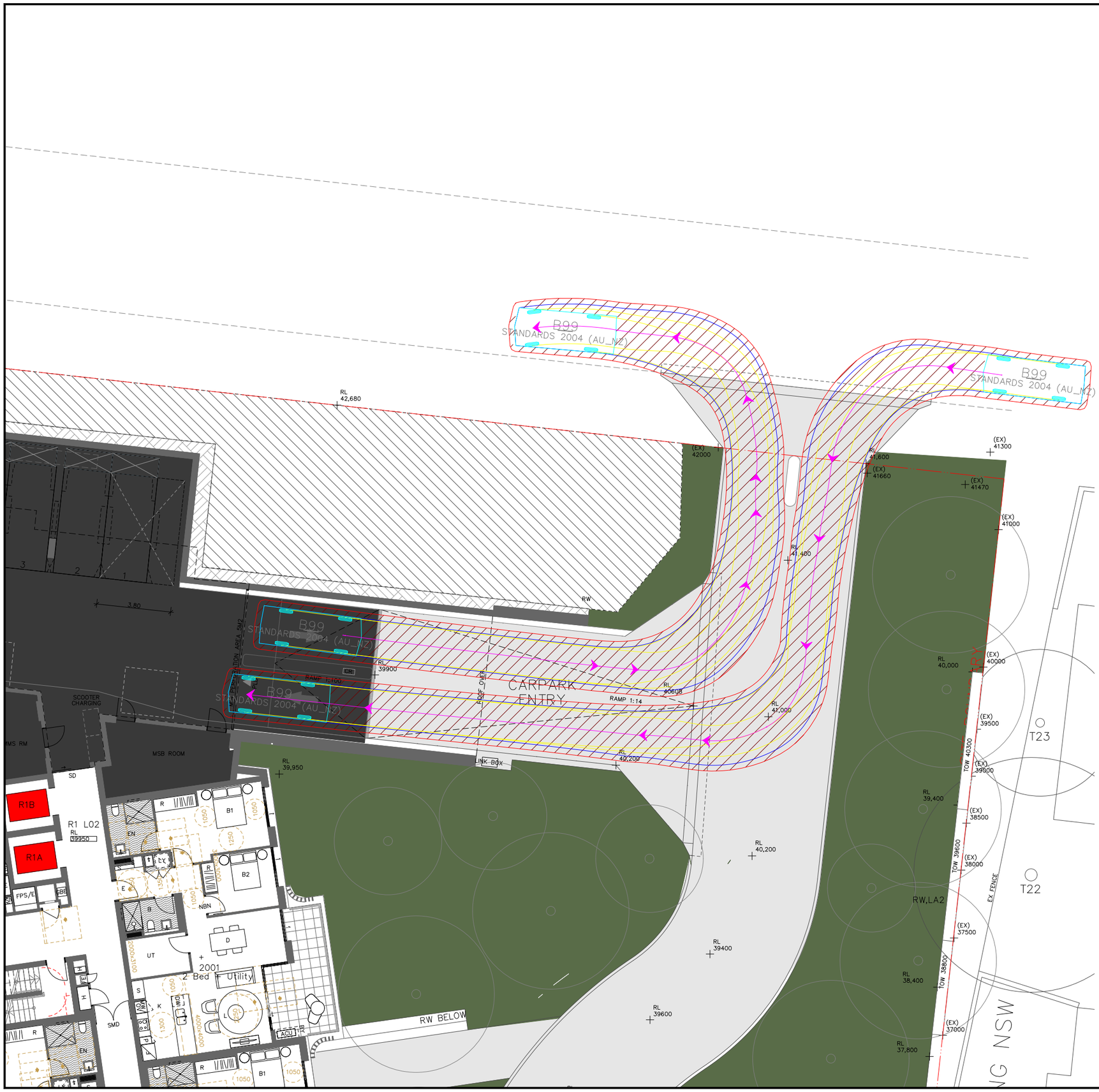
Drawing Title
Ground Floor Plan
Swept Path Analysis - Mini Bus Access and Parking
6.99m Toyota Coaster
Left: Forward Entry Manoeuvre & 2-Point Turn
Right: Forward Egress Manoeuvre

Drawn:	Checked:	Date:
AB	JP	09-09-24

23.457d08v01 TRAFFIX [240909 Plans] Design Review - Final Plans.dwg

Project No.	Drawing Phase	Drawing No.	Rev.
23.457	DA	TX.02	



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Rev.	Revision Note	By.	Date

Swept Path Legend

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

Architect
Turner

Client
Midson Group Pty Ltd

Scale / Plan Orientation

0 2 4 6 8m

1:200 @ A3

Project Description
Uniting Shellharbour

Drawing Prepared By

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Drawing Title
Level 2 Floor Plan
Swept Path Analysis - B99
Access to/from Level 2 Carpark
Left: Forward Egress Manoeuvre
Right: Forward Ingress Manoeuvre

Drawn:	Checked:	Date:
AB	JP	09-09-24

23.457d08v01 TRAFFIX [240909 Plans] Design Review - Final Plans.dwg

Project No.	Drawing Phase	Drawing No.	Rev.
23.457	DA	TX.03	

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abn: 66065132961

Reference: 23.457r05v05

28 May 2025

Midson Group Pty Ltd (NSW)
PO Box 283
Hunters Hill NSW 2110

Attention: Daiana Plassan

Re: Uniting Shellharbour - 171 Wattle Road, Shellharbour Modification (DAN0146/2024)
Request for Information

Dear Daiana,

We refer to Council's request for additional information dated 6th May 2025 in relation to the subject development. We have reviewed the traffic and parking related comments and now provide the below responses to each item, accordingly:

c. Car Parking Design

Additional information is required regarding the parking layout, including:

- *Allocation of parking uses within the basement(s). Visitor parking spaces are required to be identified per the concept DA, are not a user class 1 or 1A space and must be wider than 2.4m and should be allocated close to the carpark entrances.*

TRAFFIX Response:

All parking spaces (30 spaces) required in accordance with *SEPP (Housing) 2021* have been provided as accessible parking spaces with minimum dimensions 2.4m x 2.4m and adjacent shared zones of same dimensions. All other parking spaces have been provided as standard long-term Class 1A residential parking spaces which is considered acceptable in the circumstances given that *SEPP (Housing) 2021* is complied with.

- *Generally, despite minimum compliance being achieved for user class 1A, widening of resident parking spaces should be considered even where used by residents, as elderly residents are likely to find 2.4m wide spaces narrow and difficult to get in and out of cars.*

TRAFFIX Response:

The client operates numerous independent living developments where 2.4m wide parking spaces are provided in addition to the minimum SEPP parking requirements and these spaces operate

satisfactorily. Any requirement to widen spaces can be considered post-approval on a case by cases basis, as required.

- *Commentary on the compliance of the parallel parking spaces including accessible parking on the access road.*

  TRAFFIX Response:

  All parallel parking spaces have been provided in accordance with Figure 2.5 of AS2890.1 (2004) and the parallel accessible space has been provided in accordance with Figure 2.10 of AS2890.6 (2022).

- *Identify location of proposed EV charging bays.*

  TRAFFIX Response:

  The suitability and viability of EV charging bays is to be considered separately based on client needs having regard for voltage requirements and the ability to connect to a suitable and reliable power source. All charging infrastructure is required to be located outside of parking space envelopes, parking aisles and other vehicle manoeuvring areas.

d. Vehicle entry and exit

Additional information is required regarding the vehicle access arrangement, including:

- *Details as to how large vehicles will be prevented from using the southern access (e.g. via design or regulatory controls/signage); and how reverse manoeuvres into Wattle Road will be prevented should a large vehicle disobey any signage - noting that not only service vehicles contracted to the site will be accessing the internal road.*

TRAFFIX Response:

Heavy vehicles are not permitted to access the subject site via the southern access and this access will be restricted to light vehicles only. Access is to be controlled with signage, LATM treatments and line marking. In particular, a median is provided within the property boundary at the southern access which will prevent trucks and large vehicles from entering via the southern access. The median is proposed to be painted with hi-vis paint as an additional measure to prevent trucks from entering vis the southern access. Reference should be made to the signage and line marking plan provided in **Attachment 1**.

- *Swept paths for the driveway accessing 15 Benson Avenue, Shellharbour City Centre for both B99 vehicles as a design vehicle, and an MRV as a checking vehicle.*

TRAFFIX Response:

Reference should be made to the swept path analysis provided in **Attachment 2** showing the satisfactory operation of the driveway accessing 15 Benson Avenue.

- *Clarification regarding the vehicle speed used for swept paths provided in the current traffic report, as 0-5km/h speed paths are likely to underestimate the paths required by drivers accessing at typical speeds; which tends to lead to access points feeling tight particularly for less able (e.g. elderly drivers).*

TRAFFIX Response:

All swept paths have been undertaken with design vehicles set at 5km/h which is standard industry practice and recognises the fact that drivers are required to significantly reduce speed in constrained areas such as intersections and when undertaking turning manoeuvres. In addition, all internal parking areas, roadways and trafficable areas have been designed in accordance with AS2890.1 (2004).

We trust the above is of assistance and request that you contact the undersigned should you have any queries or require any further information.

Yours faithfully,

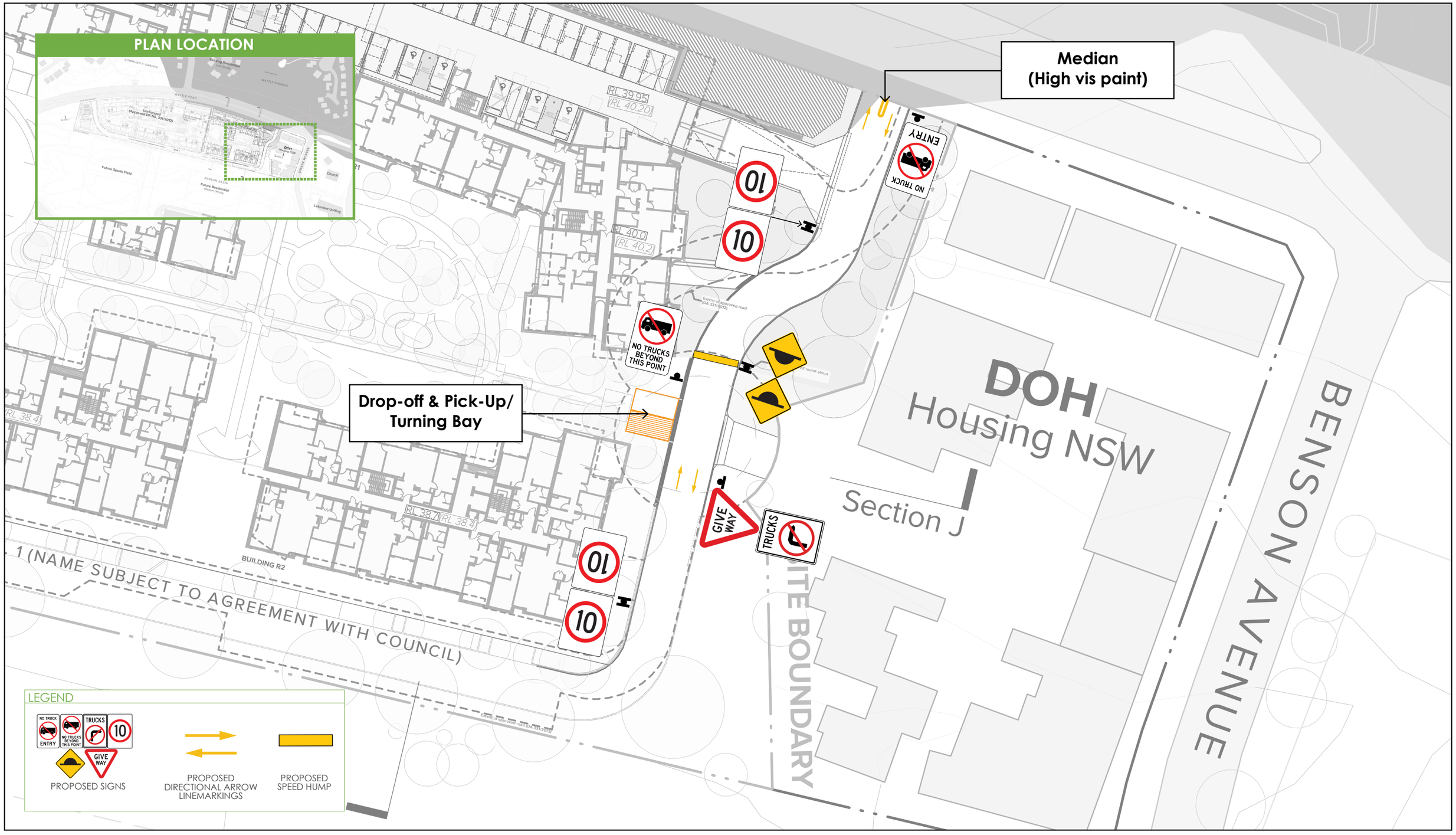
Traffix

Justin Pindar
Director

Attachment 1 – Signage and Line Marking Plan
Attachment 2 – Swept Path Analysis

ATTACHMENT 1

Signage and Line Marking Plan



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PROJECT
UNITING SHELLHARBOUR

PROJECT NUMBER
23.457

DATE
22.04.2025

CLIENT
UNITING (NSW/ACT)

SIGNAGE AND LINEMARKING PLAN

PREPARED BY
JUSTIN PINDAR

APPROVED BY
JUSTIN PINDAR

SIGNATURE

ATTACHMENT 2

Swept Path Analysis

Notes:

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Rev.	Revision Note	By.	Date

Swept Path Legend

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

Architect
Turner

Client
Midson Group Pty Ltd

Scale / Plan Orientation

0 3 6 9 12m
1:300 @ A3

Project Description
Uniting Shellharbour

Drawing Prepared By

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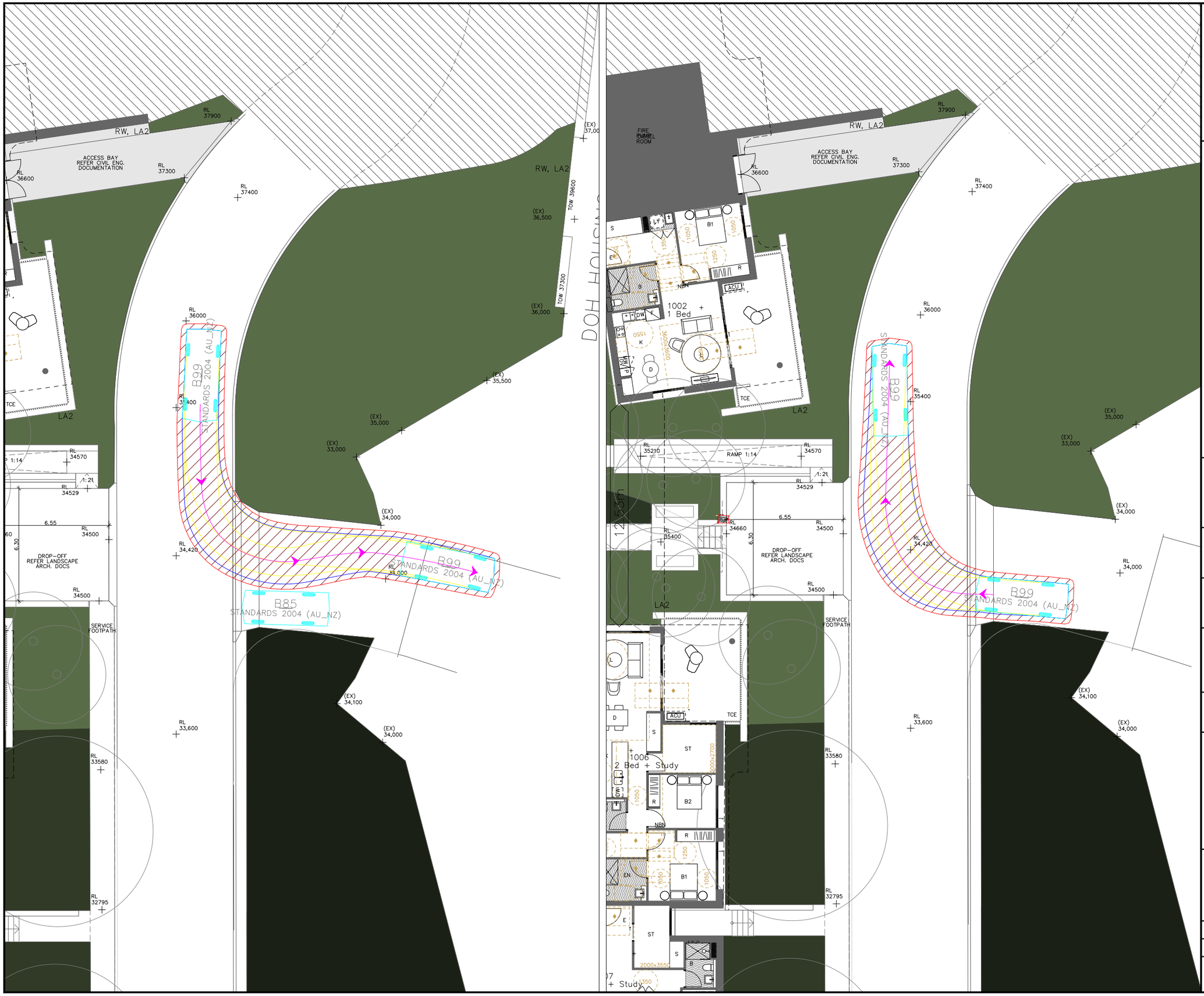
Drawing Title
Site Plan
Swept Path Analysis - 8.8m MRV (Emergency Vehicle)
Above: Right Turn Into DOH Site
Below: Left Turn From DOH Site

Drawn:	Checked:	Date:
AB	JP	09-09-24

23.457d08v02 TRAFFIX [240909 Plans] Design Review - Final Plans.dwg

Project No.	Drawing Phase	Drawing No.	Rev.
23.457	S455	TX.03	



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Rev.	Revision Note	By.	Date

Swept Path Legend

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

Architect
Turner

Client
Midson Group Pty Ltd

Scale / Plan Orientation

0 2 4 6 8m
1:200 @ A3

Project Description
Uniting Shellharbour

Drawing Prepared By

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Drawing Title
Site Plan
Swept Path Analysis - B99 Design Vehicle
Left: Left Turn into DOH Site
Right: Right Turn from DOH Site

Drawn:	Checked:	Date:
AB	JP	09-09-24

23.457d08v02 TRAFFIX [240909 Plans] Design Review - Final Plans.dwg

Project No.	Drawing Phase	Drawing No.	Rev.
23.457	DA	TX.04	

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Reference: 23.457r06v01

4th July 2025

Midson Group Pty Ltd (NSW)
PO Box 283
Hunters Hill NSW 2110

Attention: Daiana Plassan

Re: Uniting Shellharbour - 171 Wattle Road, Shellharbour Modification (DAN0146/2024)
Request for Information

Dear Daiana,

We have been requested the clarify the parking provisions in relation to the Stage 1 DA regarding the subject development.

For context, the following parking spaces have been provided:

SEPP (Housing) 2021 Car Parking Rates and Provisions

Type	Number	Minimum Parking Rate	Minimum Spaces Required	Spaces Provided
Dwellings*	152	0.2 spaces per dwelling	30.4 (30)	149

**The subject development is a social housing provider and is therefore subject to a parking rate of 1 space for every 5 dwellings in accordance with SEPP (Housing) 2021.*

The above table shows the proposed development requires a minimum of 30 parking spaces under SEPP (Housing) 2021. In response, 149 parking spaces have been provided thereby exceeding SEPP (Housing) 2021) parking requirements. For clarity, the 149 parking spaces provided comprise:

- 143 resident spaces
- 5 x staff parking spaces
- 1 x doctor parking space

The above includes 31 resident accessible parking spaces that have been provided in accordance with AS2890.6 and 2 x Electric vehicle parking spaces. Visitor parking spaces are not required in accordance with *SEPP (Housing) 2021* and none have been provided within the Ground Floor or Level

2 car parks, as is permitted under *SEPP (Housing) 2021*. Alternatively, visitors will be able to park within the eight (8) parallel parking spaces provided along Road 1.

We trust the above clarification is of assistance and request that you contact the undersigned should you have any queries or require any further information.

Yours faithfully,

Traffix

Justin Pindar
Director