Coho Property

38 Stockton Street & 8A Tomaree Street, Nelson Bay

TRAFFIC IMPACT ASSESSMENT

WGA241958

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13 February 2025

Revision History

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1 INTRODUCTION

1.1 General

WGA has been engaged by Coho Property Pty Ltd to prepare a Traffic Impact Assessment (TIA) to accompany the DA submission for a proposed mixed-use development located at 38 Stockton Street and 8A Tomaree Street, Nelson Bay.

Section B8.A of the Port Stephens Development Control Plan (DCP) states that a Traffic Impact Assessment (TIA) is required for:

- Development for 20 or more dwellings;
- Development defined as a traffic generating development; or
- Development deemed in Council's opinion to impact the existing road network.

Consequently, the following TIA has been prepared to determine the potential impact to the existing road network and the suitability of the on-site car parking provisions.

1.2 Documentation Referenced

Whilst preparing this TIA report, the following information and documentation has been referenced:

- Development plans prepared by Holdsworth Design dated January 2025.
- Traffic volume surveys undertaken by Northern Transport Planning and Engineering.
- Nearmap aerial imagery and Google Streetview imagery as required.
- Port Stephens Development Control Plan 2024.
- Port Stephens Local Environmental Plan 2013.
- Australian Standard Parking Facilities Part 1: Off-street Parking (AS2890.1).
- Australian Standard Parking Facilities Part 2: Off-street Commercial Vehicle Facilities (AS2890.2).
- Australian Standard Parking Facilities Part 3: Bicycle Parking (AS2890.3).
- Australian Standard Parking Facilities Part 6: Off-street Parking for People with Disabilities (AS2890.6).
- Australian Standard: Design for Access and Mobility (AS1428).
- Austroads Guide to Traffic Management Part 3: Transport Study and Analysis Methods.
- Austroads Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments.
- RTA Guide to Traffic Generation Developments 2002 (Version 2.2).
- RMS Technical Direction: Guide to Traffic Generating Developments Updated Traffic Surveys 2013 (TDT 2013-04a).
- Transport for NSW Traffic Volume Viewer.

2 DEVELOPMENT PROPOSAL

The proposal seeks to permit the construction of a ten (10) storey mixed-use development located at 38 Stockton Street and 8A Tomaree Street, Nelson Bay.

Plans of the proposal prepared by Holdsworth Design dated January 2025 indicate that the proposed development will comprise the following key components:

- 48 apartment dwellings.
  - 4 one-bedroom apartments.
  - 36 two-bedroom apartments.
  - 5 three-bedroom apartments.
  - 3 four-bedroom apartments.
- Approx 181sqm of ground floor commercial space.
- 83 on-site car parking spaces.

An overview of the proposed development is illustrated in Figure 2.1.

Figure 2.1: Overview of Proposed Development

2.1 Access Arrangements

Access to the site is proposed to be provided via a double-width crossover to Tomaree Street along the southern boundary of the site.

2.2 Car Parking

A total of 83 on-site car parking spaces are proposed across three (3) parking levels and are understood to comprise 59 spaces allocated to residents, 17 spaces allocated to visitors and 6 spaces associated with the ground floor commercial tenancies. One (1) accessible space is also proposed within the commercial parking on the ground level.

2.3 Waste Collection

Waste collection activities are proposed to be undertaken on-site via private contractor. Waste collection vehicles up to a 'Waste Wise Mini' are proposed to be utilised in order to access the ground level waste area and is further discussed in Section 6.2.

3 SITE CONTEXT

3.1 Subject Site

The subject site is located across 38 Stockton Street and 8A Tomaree Street, Nelson Bay. Land uses surrounding the site are generally a combination of residential and commercial, with the location of the subject site in the context of the surrounding network illustrated in Figure 3.1.

Further Nearmap aerial imagery of the site is shown in Figure 3.2.

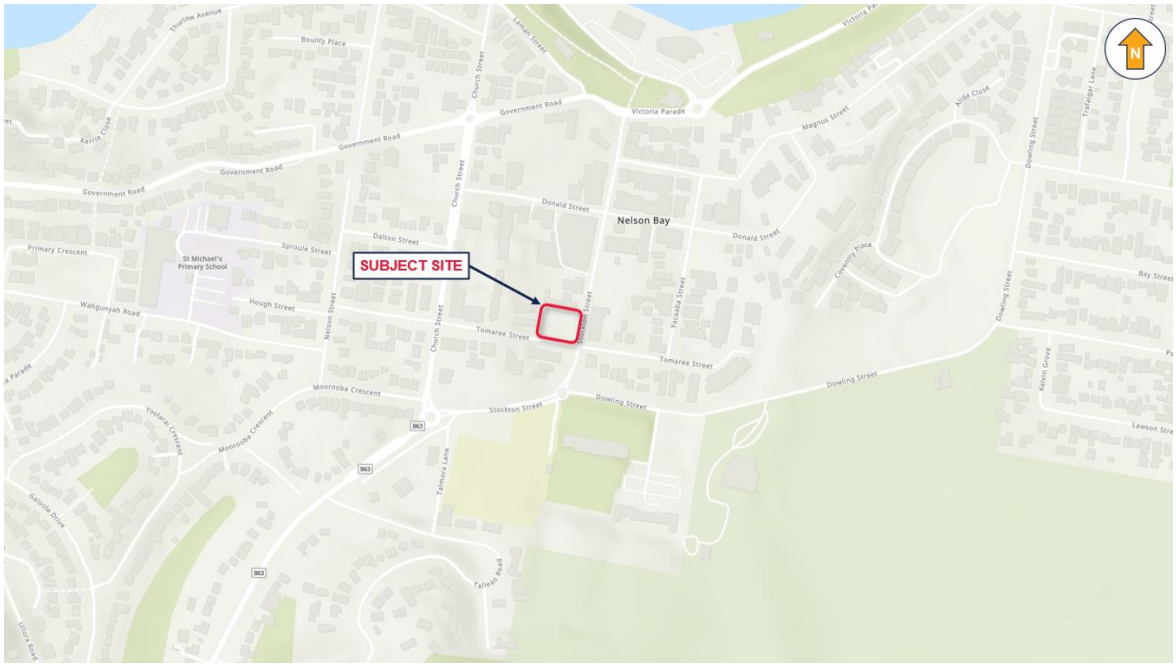


Figure 3.1: Subject Site and Surrounding Road Network

Figure 3.2: Subject Site and Surrounding Environs

3.2 Existing Site

The existing site is generally vacant and is utilised as an unsealed and informal off-street car park. Access to the site is achieved via a crossover to Stockton Street along the eastern boundary.

A secondary crossover is also provided to Stockton Street; however, it is not currently in use. A further unused crossover is provided in the south-west corner of the site to Tomaree. Access to all unused crossovers has been restricted through the implementation of temporary concrete safety barriers.

3.3 Planning Zone

The subject site is located within a Local Centre (E1) zone and is generally located adjacent a Medium Density Residential (R3) zone. The location of the subject site in the context of the surrounding planning zones is shown in Figure 3.3.

Figure 3.3: Extract of Land Zoning Map

The Port Stephens Local Environmental Plan 2013 (PSLEP) outlines the following objectives for a Local Centre (E1) zone:

- To provide a range of retail, business and community uses that serve the needs of people who live in, work in or visit the area.
- To encourage investment in local commercial development that generates employment opportunities and economic growth.
- To enable residential development that contributes to a vibrant and active local centre and is consistent with the Council's strategic planning for residential development in the area.
- To encourage business, retail, community and other non-residential land uses on the ground floor of buildings.

3.4 Road Network

The subject site is proposed to be accessed by Tomaree Street which is a designated local road under Transport for NSW's (TfNSW) Road Network Classification. The road hierarchy of the surrounding network has been reproduced in Figure 3.4.

Figure 3.4: Surrounding Road Network Hierarchy

Stockton Street and Tomaree Street are both designated local roads under the management of Council and provide for local circulation and access.

3.4.1 Stockton Street

Stockton Road is a local road managed by Port Stephens Council. In the vicinity of the site, Stockton Street is generally aligned a north-south direction and runs from Government Road in the south to Galoola Drive in the north before its continuation as Nelson Bay Road.

Stockton Street is restricted to southbound movements only and provides one (1) traffic lane and a combination of parallel and angled on-street parking across its approx. 12.5m wide carriageway. Sealed pedestrian footpaths are provided along both sides of Stockton Street.

Stockton Street has a default speed limit of 50km/h in the vicinity of the site, with views of Stockton Street along the site frontage shown in Figure 3.5 and Figure 3.6.

Figure 3.5: Stockton Street Facing North Towards the Subject Site (October 2020)

Figure 3.6: Stockton Street Facing South Beyond Subject Site (October 2023)

3.4.2 Tomaree Street

Tomaree Street is a local road managed by Port Stephens Council and is generally aligned in an east-west direction. Tomaree Street provides one (1) traffic lane in each direction with on-street parallel parking provides on each side of the carriageway.

Tomaree Street has a default speed limit of 50km/h in the vicinity of the site, with views of Tomaree Street along the site frontage shown in Figure 3.7 and Figure 3.8.

Figure 3.7: Tomaree Street Facing East Towards the Subject Site (October 2023)

Figure 3.8: Tomaree Street Facing West from Stockton Street (October 2023)

3.5 Sustainable Transport

3.5.1 Public Transport

The site has excellent access to public transport, with a number of bus stops located in close proximity to the site along Donald Street and Church Street.

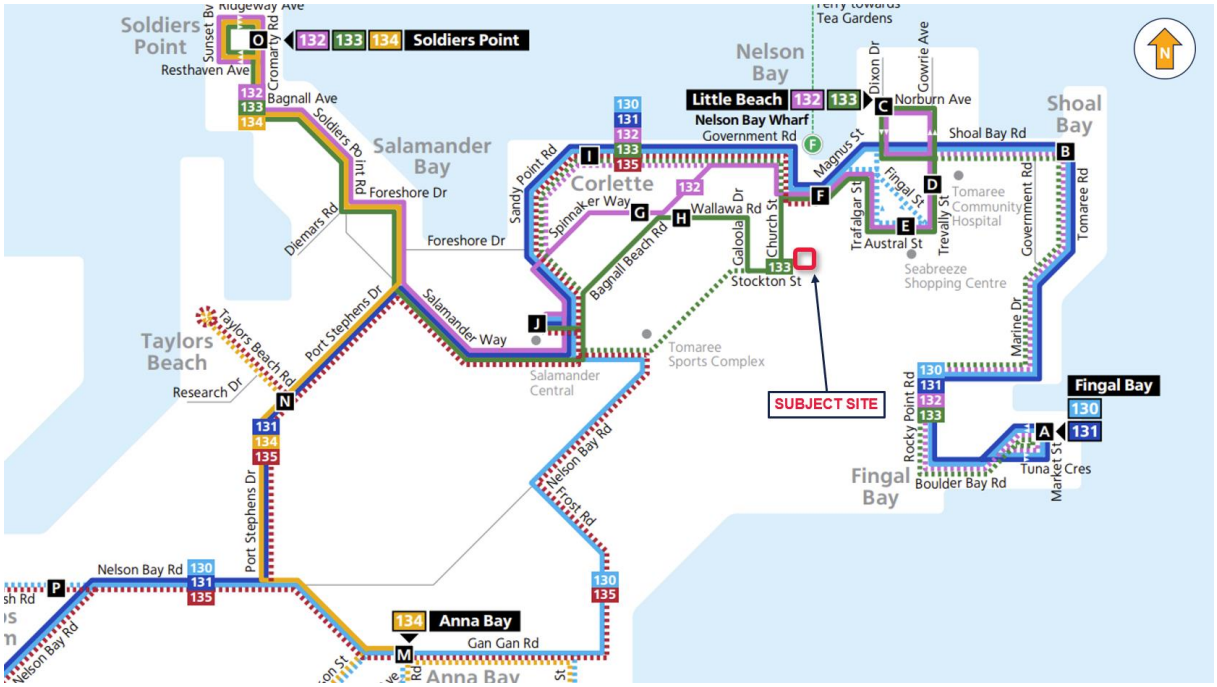


Figure 3.9: Nearby Public Transport Services

The surrounding public transport services are summarised in Table 3.1.

Table 3.1: Summary of Nearby Public Transport Services

SERVICE	ROUTE NO.	ROUTE	NEAREST STOP
Bus	130	Fingal Bay to Newcastle via Gan Gan Road	Donald Street (200m ~ 2 mins)
	131	Fingal Bay to Newcastle (Express Service)	
	132	Nelson Bay to Soldiers Point	
	133	Nelson Bay to Soldiers Point	
	135	Nelson Bay to Raymond Terrace	

3.5.2 Walking

Walking is a fundamental and direct means of access to most places and to goods and services. It is an ecologically sustainable form of transport and can have sustainable health benefits. Walking can be an ideal substitute for short car trips, including those to public transport stops.

The site is well connected to an extensive network of formal footpaths and off-road shared paths providing convenient access to the site.

To contextualise the pedestrian connectivity of a site, a walkability map has been sourced by Targomo and reproduced in Figure 3.10 showing areas within a 15-minute walk of the subject site.

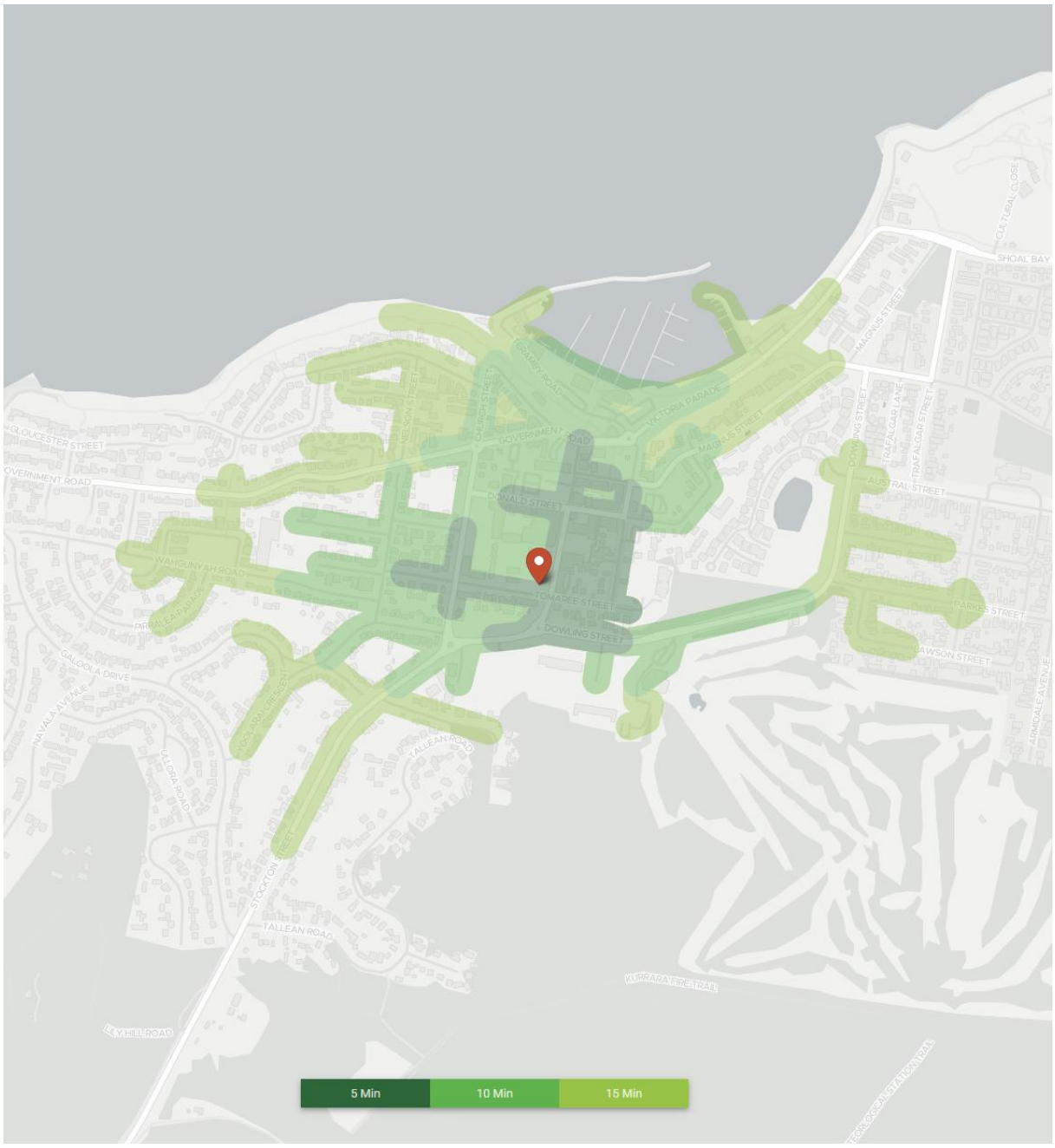


Figure 3.10: Walkability Map

3.5.3 Cycling

Bicycles are an excellent form of transport. They have almost no impact on the environment, produce no greenhouse gases, make no noise and consume no fossil fuels. Cycling is also good for people's health and fitness and is an enjoyable pastime.

The subject site is well serviced by formal bicycle infrastructure with a number of shared paths provided within the Nelson Bay township, providing connection to Shoal Bay and Fingal Bay.

A cyclability map sourced from Targomo and provided in Figure 3.11 illustrates areas within a 15-minute ride of the subject site.

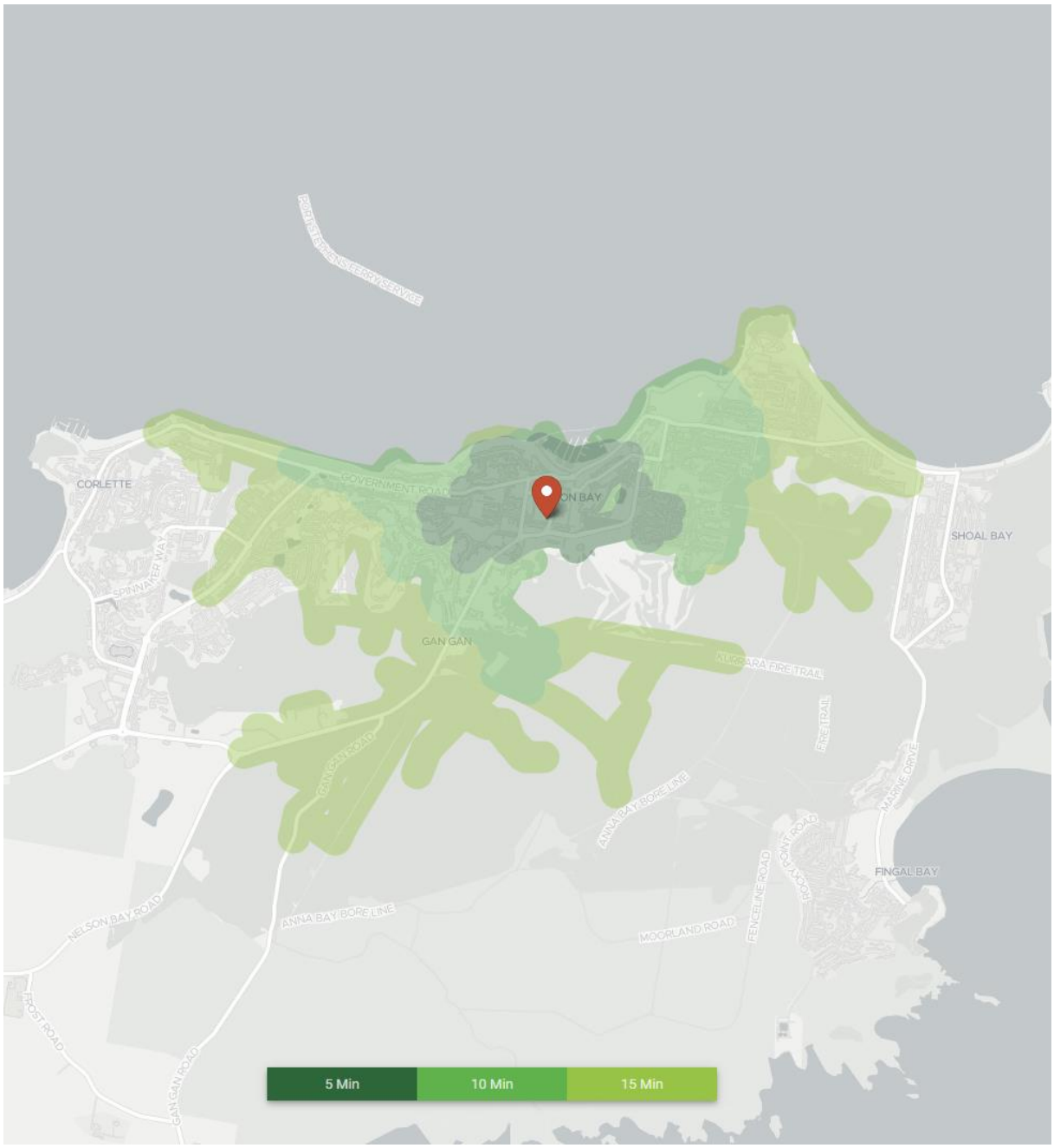


Figure 3.11: Cyclability Map

4 CAR PARKING CONSIDERATIONS

4.1 Statutory Requirements

Section B8 'Road Network and Planning' of the Port Stephens Development Control Plan (DCP) specifies the statutory car parking requirements relating to the provision of on-site car parking spaces across a number of uses.

Table 4.1 has been prepared to detail the statutory car parking requirements applicable to the proposal, based on the applicable rates prescribed within Figure BU of the Port Stephens DCP.

Table 4.1: Statutory Car Parking Requirements - Port Stephens DCP

DEVELOPMENT TYPE	SIZE / NO.	PARKING REQUIREMENTS	CAR PARKING REQUIREMENT
Residential Flat Building	48[1] dwellings	• 1 car space for one and two bedroom dwellings. • 2 car spaces for three > bedroom dwellings. • 1 visitor space for every three dwellings.	72 spaces
Commercial (Office & Business)	181 sqm	• 1 car space per 40m^2 floor area. • 1 accessible car space per 30 car parking spaces.	5 spaces
		TOTAL	**77 spaces**

[1] Comprising 4 one bedroom apartments, 36 two bedroom apartments, 8 three & four bedroom apartments

As shown in Table 4.1, application of the statutory car parking rates outlined within Figure BU of the Port Stephens Development Control Plan to the proposed development results in a requirement to provide 77 on-site car parking spaces, inclusive of one (1) accessible space associated with the commercial use.

4.2 Adequacy of On-Site Car Parking Supply

It is proposed to provide 83 on-site car parking spaces. Therefore the proposed parking provision meets the statutory requirements outlined in the DCP and is considered appropriate.

Additionally, it is noted that the construction of the crossover to Tomaree Street is expected to result in the loss of three (3) on-street car parking spaces along the site frontage.

However, the closure of the existing crossover to Stockton Street would create an opportunity to implement a further five (5) angled on-street car parking spaces, representing a net increase of two (2) on-street car parking spaces along the site frontage.

4.3 Car Parking Design & Access

4.3.1 Car Parking Arrangements

Section B8.10 of the Port Stephens DCP states that parking is to be designed in accordance with Australian Standard Parking Facilities Part 1: Off-street Parking (AS2890.1) and Australian Standard Design for Access and Mobility (AS1428).

The car parking design and layout has been reviewed against the relevant Australian Standards, where it can be confirmed that all proposed on-site car parking spaces have been designed in accordance with the requirements specified within AS2890.1 for a User Class 1A car parking facility, with the following arrangement typically adopted:

- **Car Space Length:** 5.5m.
- **Car Space Width:** 2.4m.
- **Aisle Width:** 6.1m.

Furthermore, the proposed accessible space has been designed in accordance with Australian Standard for Parking Facilities Part 6: Off-street Car Parking for People with Disabilities (AS2890.6), with a minimum headroom of 2.3m provided along vehicular paths of travel to and from parking spaces for people with disabilities in accordance with AS2890.6.

A swept path analysis has been prepared to demonstrate vehicle circulation within the basement car parking levels and access to critical car parking spaces and is attached within Appendix A.

4.3.2 Ramp Design

The site access from Tomaree Street has been designed to the requirements outlined within Section 3.3 of AS2890.1 to minimise issues associated with crossing the footpath and entering the frontage road.

A maximum grade of 1 in 20 (5%) is proposed along the exit side of the ramp for the first 4m from the property boundary, allowing exiting vehicles to prop stationary on the relatively flat grade to improve visibility and accommodate safe exit movements for vehicles and pedestrians crossing the site frontage.

The proposed ramps between the basement car parking levels are detailed with a maximum grade of 1 in 5 (20%) and are in accordance with Section 2.5.3 of AS28901 for straight ramps within public car parks.

Grade transitions of 2m in length are proposed at changes of grade along each of the ramps and achieves the maximum permitted change for both summit and sag grade changes. Therefore, the ramps are not expected to result in any scraping or bottoming and is considered appropriate.

4.3.3 Site Access Arrangements

Driveway Access Width

Section B8.C of the Port Stephens DCP outlines the following objectives for proposed site access arrangements:

- To ensure that vehicle access is located in a safe location, where it least impacts on existing transit movements.
- To ensure driveway exits maximise sight distances for traffic and pedestrians on footpaths.

Plans of the development indicate that the existing crossover to Tomaree Street is proposed to provide access to the on-site car parking areas. Consequently, the site access arrangements have been assessed against the requirements outlined within Section B8.C of the Port Stephens DCP.

When determining the suitability of the proposed access arrangements, the following site characteristics have been considered in accordance with Figure BV of the Port Stephens DCP:

- **Class of Parking:** Class A (all day parking – residents and employees).
- **Classification of Frontage Road:** Local.
- **Number of Parking Spaces to be Accessed:** 83 spaces.

Application of the above factors results in the driveway access being determined as an Access Facility Category 1 which requires a combined entry / exit width of 4m in accordance with Figure BV of the Port Stephens DCP.

The proposed access width of 6.4m provides adequate sight lines along the site frontages in accordance with Figure BW (as discussed below) and is considered to provide safe and satisfactory access to the site in line with the objectives set out in the DCP.

Driveway Access Sight Distance

The sight lines available to exiting vehicles at the proposed access has been assessed against the requirement outlined within Figure BW and Figure BX of the Port Stephens DCP which states that for a frontage road speed of 50km/h such as Tomaree Street, a Minimum Sight Distance (MSD) of 40m is required for residential uses.

As shown in Figure 4.1, the required sight distance is able to be achieved when accounting for a driver's setback position of 2.5m from the frontage road and is therefore considered appropriate.

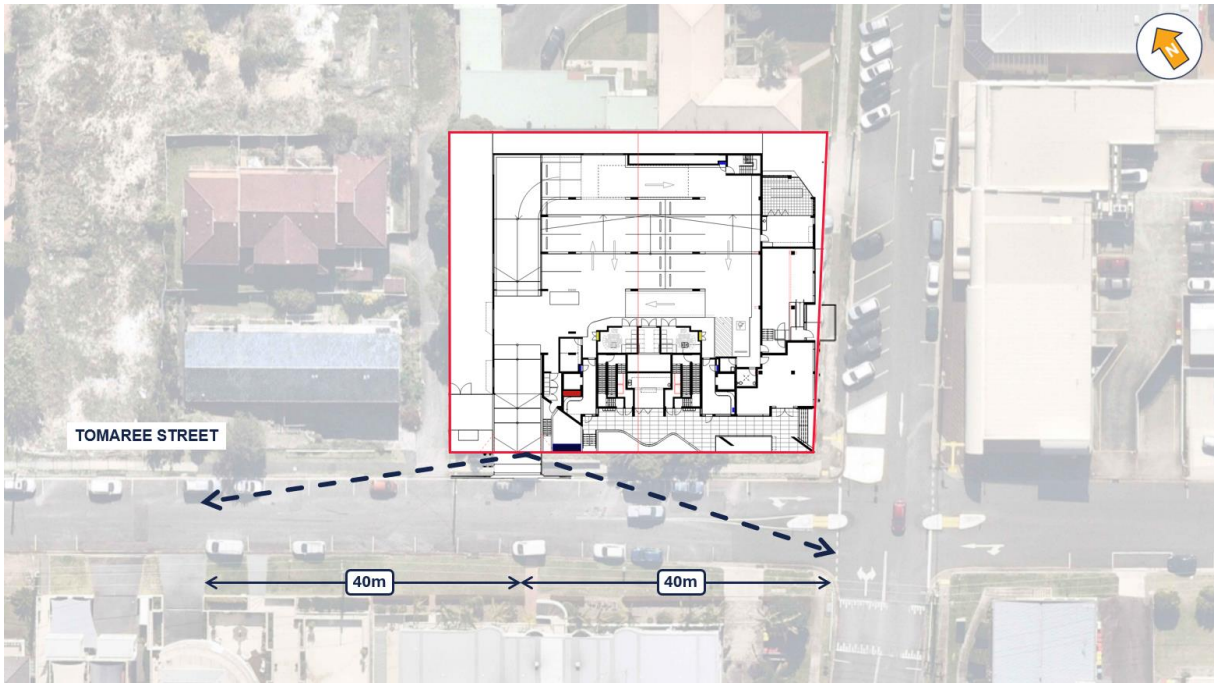


Figure 4.1: Proposed Access Sight Distance Requirements

Furthermore, it is noted that pedestrian sight triangles are provided on both sides to the proposed access in accordance with Figure 3.3 of AS2890.1, to provide adequate sight lines to pedestrians across the site frontage.

5 TRAFFIC CONSIDERATIONS

5.1 Assessed Scenarios

A SIDRA Intersection analysis has been undertaken to determine the current operation of the adjacent intersection of Stockton Street and Tomaree Street, whilst gaining an understanding of the likely future operation of the proposed site access and its impact on the operation of Tomaree Street and Stockton Street.

To inform the assessment, the following scenarios have been assessed:

- Existing Conditions.
- Future Conditions (Year 2036).
- Post Development Conditions (Future Conditions *plus* site generated traffic).

5.2 Existing Traffic Conditions

To gain an understanding of the prevailing traffic conditions along the site frontage, WGA commissioned turning movement count surveys at the intersection of Stockton Street and Tomaree Street across a typical weekday and weekend period.

A review of the surveyed traffic volumes suggests that vehicular movements along the site frontage peak at the following times:

- **AM Peak:** 8:45am – 9:45am.
- **PM Peak:** 4:45pm – 5:45pm.

The surveyed peak hour traffic volumes are illustrated in Figure 5.1.

Figure 5.1: Surveyed Traffic Volumes – Thursday 27 August 2024 AM & PM Peak

5.3 Future Traffic Conditions

To gain an understanding of the anticipated future traffic volumes, an assumed growth rate has been applied to the surveyed traffic volumes at the site frontage in accordance with the *Austroads Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments*.

The following factors have been used to determine the future base traffic volumes (pre-development):

- **Applied compounding growth rate:** 2.00%.
- **Estimated year of development completion:** 2026.
- **Design period:** 10 years:
- **Assessed design year:** 2036.

With consideration of the factors outlined above, the projected future traffic volumes (existing traffic volumes plus background network growth) across the AM and PM peak periods (pre-development) are shown in Figure 5.2.

Figure 5.2: Projected 2036 Base Traffic Volumes

It is noted that the volumes outlined in Figure 5.2 represent a conservative estimate as it includes vehicle movements associated with the existing site.

5.4 Traffic Generation

5.4.1 General

The *RTA Guide to Traffic Generating Developments (2002)* outlines typical traffic generation rates for various land uses and provides guidance for proposed trip generating developments. A number of factors can influence travel behaviour, including (but not limited to):

- Distance to public transport services.
- Distance to and quality of surrounding active transport networks
- Distance to other destinations, such as schools, retail, etc.
- Type of road access.

These characteristics will affect the total number of trips generated for a given development. Therefore, with consideration of the above factors, the various uses contemplated as part of this proposal have been assessed as follows:

5.4.2 Office & Commercial

The *RTA Guide to Traffic Generating Developments* outlines the following traffic generation rate associated with office and commercial uses, and has been applied to the proposed ground floor commercial tenancies:

- **Daily vehicle trips:** 10 trips per 100m^2 gross floor area.
- **Evening peak hour trips:** 2 trips per 100m^2 gross floor area.

It is noted that these rates assume that 80% of employees leave the site in the evening peak hour and that this could vary due to the location and type of tenant. Additionally, employee densities vary depending on the type of commercial development proposed.

The above generation rates are based on sites with a mean employee density of 4.75 employees per 100sqm gross floor area. Therefore, the traffic generation rate outlined above is considered to represent a conservative estimate.

5.4.3 Residential

Furthermore, in 2013, revised traffic generation rates were published within the *RMS Technical Direction: Guide to Traffic Generating Developments Updated Traffic Surveys*, which provided updated traffic generation rates for a number of land uses, including high density residential dwellings in regional areas as follows:

- **Daily vehicle trips:** 4.58 per dwelling.
- **Weekday average morning peak hour vehicle trips:** 0.53 per dwelling.
- **Weekday average evening peak hour trips:** 0.32 per dwelling.

It is noted that all surveyed sites were close to public transport, greater than six (6) storeys and almost exclusively residential in nature and are considered to be an accurate representation of the proposed development.

5.5 Anticipated Traffic Distribution

5.5.1 General

A review of the existing traffic volumes outlined within Section 5.1, suggest that site development traffic movements would exhibit the following distribution when exiting the site:

- **Eastbound:** 46%.
- **Westbound:** 10%.
- **Southbound:** 44%.

5.5.2 Residential

For the purposes of this assessment, the following directional splits have been adopted for the residential component of the proposal:

	Inbound:	**Outbound:**
AM Peak:	30%	70%
PM Peak:	60%	40%

5.5.3 Office & Commercial

For the purposes of this assessment, it has been assumed that peak hour vehicular movements associated with the commercial uses will be entirely inbound during the morning peak, and entirely outbound in the evening peak.

5.6 Site Generated Traffic Volumes

Based on the preceding assumptions, peak hour and daily traffic volumes anticipated to be generated by the subject site are summarised within Table 5.1 and further illustrated within Figure 5.3.

Table 5.1: Anticipated Site Generated Traffic Volumes

DEVELOPMENT TYPE	SIZE / NO.	PERIOD	INBOUND	OUTBOUND	TOTAL (TWO-WAY)
Residential Flat Building	48 dwellings	AM Peak	8 vph	18 vph	25 vph
		PM Peak	9 vph	6 vph	15 vph
Commercial (Office & Business)	181 sqm	AM Peak [1]	4 vph	-	4 vph
		PM Peak	-	4 vph	4 vph

[1] Evening peak hour traffic generation rate applied to AM peak.

Figure 5.3: Site Generated Traffic Volumes - AM and PM Peak

5.7 Post Development Traffic Volumes

Application of the calculated site generated traffic volumes outlined within Figure 5.3 to the projected 2036 traffic volumes discussed in Section 5.3 results in the following post development 2036 traffic volumes outlined within Figure 5.4.

Figure 5.4: Year 2036 Post Development Traffic Volumes - AM and PM Peak

5.8 Post Development Traffic Conditions

The proposed access forms an unsignalised intersection with Tomaree Street along the southern boundary of the site. Consequently, an assessment of the proposed intersection and its interface with the adjacent intersection of Stockton Street and Tomaree Street has been undertaken using SIDRA Intersection 9.0 modelling software.

SIDRA Intersection 9.0 is a computer-based modelling tool that allows for the capacity of an intersection or a number of intersections to be analysed in terms of a range of parameters, as described below.

The most commonly used measure of intersection performance is Degree of Saturation (D.o.S), which is the ratio of the volume of traffic observed making a particular movement compared to the maximum capacity for that movement. Various degrees of saturation and their rating are shown in Table 5.2.

Table 5.2: Ratings of Degree of Saturation

DEGREE OF SATURATION (D.o.S)	RATING
Up to 0.6	Excellent
0.6 to 0.7	Very Good
0.7 to 0.8	Good
0.8 to 0.9	Fair
0.9 to 1.0	Poor
Above 1.0	Very Poor

It is considered acceptable for some critical movements in an intersection to operate with a D.o.S up to 0.95 during peak periods, reflecting actual conditions in a significant proportion of suburban signalised intersections. Beyond a D.o.S of 0.95 queuing and delays begin to increase disproportionately.

Additionally, Austroads Guide to Traffic Management Part 3: Transport Study and Analysis Methods refers to target 'practical degrees of saturation' for a number of intersection configurations, as follows:

- Signals: 0.90
- Roundabouts: 0.85
- Unsignalised Intersections: 0.80

95th Percentile (95%ile) Queue represents that maximum queue length, in metres, that can be expected in 95% of observed queue lengths in the peak hour.

Average Delay is the delay time, in seconds, which can be expected over all vehicles making a particular movement in the peak hour.

The results of the SIDRA analysis outlining a comparison between the existing operating conditions and the subsequent post-development conditions has been summarised in Table 5.3 and Table 5.4.

Table 5.3: SIDRA Intersection Analysis Results Summary – Stockton Street & Tomaree Street

APPROACH	EXISTING CONDITIONS			POST-DEVELOPMENT		
	D.o.S	AVERAGE DELAY (s)	95TH %ILE QUEUE (m)	D.o.S	AVERAGE DELAY (s)	95TH %ILE QUEUE (m)
Weekday AM Peak						
Stockton St (S)	0.09	4	3	0.16	5	6
Tomaree St (E)	0.02	9	0	0.03	8	1
Stockton St (N)	0.11	2	1	0.17	1	2
Tomaree St (W)	0.04	10	1	0.10	10	3
Weekday PM Peak						
Stockton St (S)	0.05	5	2	0.09	5	3
Tomaree St (E)	0.02	9	1	0.04	8	1
Stockton St (N)	0.13	2	2	0.20	1	3
Tomaree St (W)	0.04	9	1	0.10	10	2

Table 5.4: SIDRA Intersection Analysis Results Summary - Proposed Site Access

APPROACH	D.o.S	AVERAGE DELAY (s)	95TH %ILE QUEUE (m)
Weekday AM Peak			
Tomaree St (E)	0.03	1	1
Site Access (N)	0.01	2	0
Tomaree St (W)	0.03	0	0
Weekday PM Peak			
Tomaree St (E)	0.04	1	0
Site Access (N)	0.01	2	0
Tomaree St (W)	0.03	0	0

The results of the SIDRA assessment outlined in Table 5.3 and Table 5.4 suggest that the proposed development will have a negligible impact on the operation of Tomaree Street and Stockton Street, with all site generated traffic volumes able to be readily absorbed by the surrounding network.

It is reiterated that the results outlined above are considered to be a conservative assessment, as no reduction has been made associated with the existing use (car park) on-site.

6 OTHER CONSIDERATIONS

6.1 Bicycle Parking

Section B8 'Road Network and Planning' of the Port Stephens Development Control Plan (DCP) specifies the statutory car parking requirements relating to the provision of on-site bicycle parking spaces across a number of uses.

Table 4.1 has been prepared to detail the statutory bicycle parking requirements applicable to the proposal, based on the applicable rates prescribed within Figure BU of the Port Stephens DCP.

Table 6.1: Statutory Bicycle Parking Requirements - Port Stephens DCP

DEVELOPMENT TYPE	SIZE / NO.	PARKING REQUIREMENTS	BICYCLE PARKING REQUIREMENT
Residential Flat Building	48 dwellings	• No requirement.	-
Commercial (Office & Business)	181 sqm	• 1 bicycle space per 200m^2.	1 space
		TOTAL	1 space

As shown in Table 6.1, application of the statutory bicycle parking rates outlined within Figure BU of the Port Stephens Development Control Plan to the proposed development results in the requirement to provide one (1) bicycle parking space.

It is proposed to provide one (1) ground mounted bicycle hoop (totalling two (2) spaces) at the site frontage. Therefore the proposed bicycle parking provision meets the statutory requirements outlined in the DCP and is considered appropriate.

Additionally, it is expected that any bicycle parking demands generated by the residential component of the site would be accommodated within areas internal to the site such as storage lockers.

6.2 Loading & Waste Collection

It is understood that waste collection activities are proposed to be undertaken on-site by private contractors utilising a ute and trailer or small waste collection vehicle such as a 'Waste Wise Mini', which has a height of 2.1m and length of 6.4m.

Loading and waste collection activities are proposed to occur outside of typical peak hour periods in order to minimise the likelihood of conflicts between waste and loading vehicles and vehicles entering / exiting the car park.

In this regard, the proposed loading and waste collection arrangements are considered appropriate and in accordance with Section B8.D of the Port Stephens DCP.

6.3 Compliance with Section B8.E of Port Stephens DCP

To encourage more active lifestyles and ecologically sustainable development, the Port Stephens DCP seeks to provide convenient access to nearby public transport services.

Specifically, Section B8.17 of the DCP states that for development applications comprising 20 or more dwellings, that an existing and fully accessible bus stop or shelter shall be located within a 400m walking catchment.

As detailed within Section 3.5.1, an existing bus stop is located nearby on Donald Street and is approximately 200m from the subject site. The bus stop services five (5) routes and is considered to satisfy the objectives of Section B8.17 of the DCP and is considered appropriate.

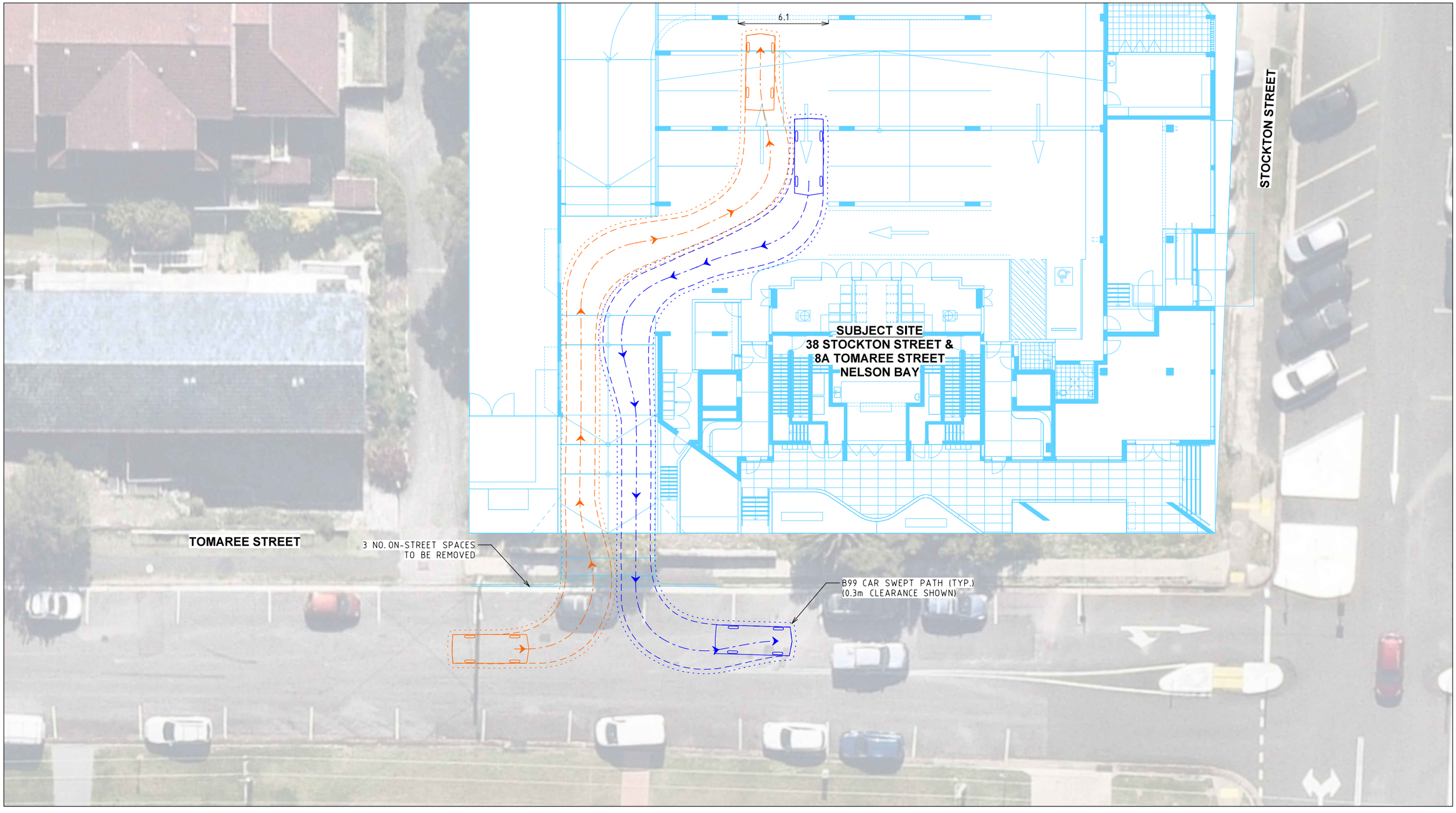
7 SUMMARY & CONCLUSIONS

This Traffic Impact Assessment report has been prepared for the proposed mixed-use development located at 38 Stockton Street and 8A Tomaree Street, Nelson Bay.

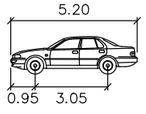
Based on the discussions and analysis outlined within this report the following key conclusions are derived:

- The proposal seeks to permit the construction of a ten (10) storey mixed-use development.
- Based on a review of the provided plans, the proposal is understood to comprise 48 apartment dwellings and approximately 181sqm of ground floor commercial space.
- The proposal attracts a statutory requirement to provide 77 on-site car parking spaces.
- The development is proposed to be serviced by 83 on-site car parking spaces and is therefore considered to be in accordance with the requirements outlined within Figure BU of the Port Stephens Development Control Plan and is considered appropriate.
- The construction of the Tomaree Street crossover is expected to result in the loss of three (3) on-street car parking spaces. However a further five (5) spaces are able to be implemented due to the closure of the existing crossover to Stockton Street, resulting in a net increase of two (2) on-street car parking spaces along the site frontage.
- The car park layout has been designed in accordance with the Australian Standard for Parking Facilities Part 1: Off-Street Car Parking (AS2890.1) and Australian Standard for Parking Facilities Part 6: Off-street Parking for People with Disabilities (AS2890.6).
- Swept path assessments have been conducted to demonstrate the appropriateness of the car parking layout and circulation.
- The proposal is anticipated to generate up to 29 new vehicular movements during the critical AM peak demand period (combined inbound and outbound movements).
- SIDRA intersection modelling indicates that the site access and the adjacent unsignalised intersection of Stockton Street / Tomaree Street will continue to operate well with minimal queuing and delays under the projected 2036 post-development conditions.
- The level of traffic movements expected to be generated by the proposed development is expected to pose negligible impacts to the safety and operations of the surrounding road network and intersections.
- Waste collection and loading activities are proposed to be undertaken on-site outside of peak periods and is considered appropriate, with access able to be achieved by vehicles up to a ‘Waste Wise Mini’ or ute and trailer.
- It is proposed to provide one (1) ground mounted bike hoop at the site frontage, in accordance with the requirements outlined within Figure BU of the Port Stephens DCP.

APPENDIX A
SWEPT PATH DIAGRAMS



DESIGN VEHICLE



B99

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

When sheet printed full size, the scale bar is 50mm.

0 25 50mm

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N

2.5 1.25 0 2.5 5

SCALE BAR (m)
1:250 @ A3

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A	23.10.2024	ISSUED FOR INFORMATION	J.M	J.M	P.N
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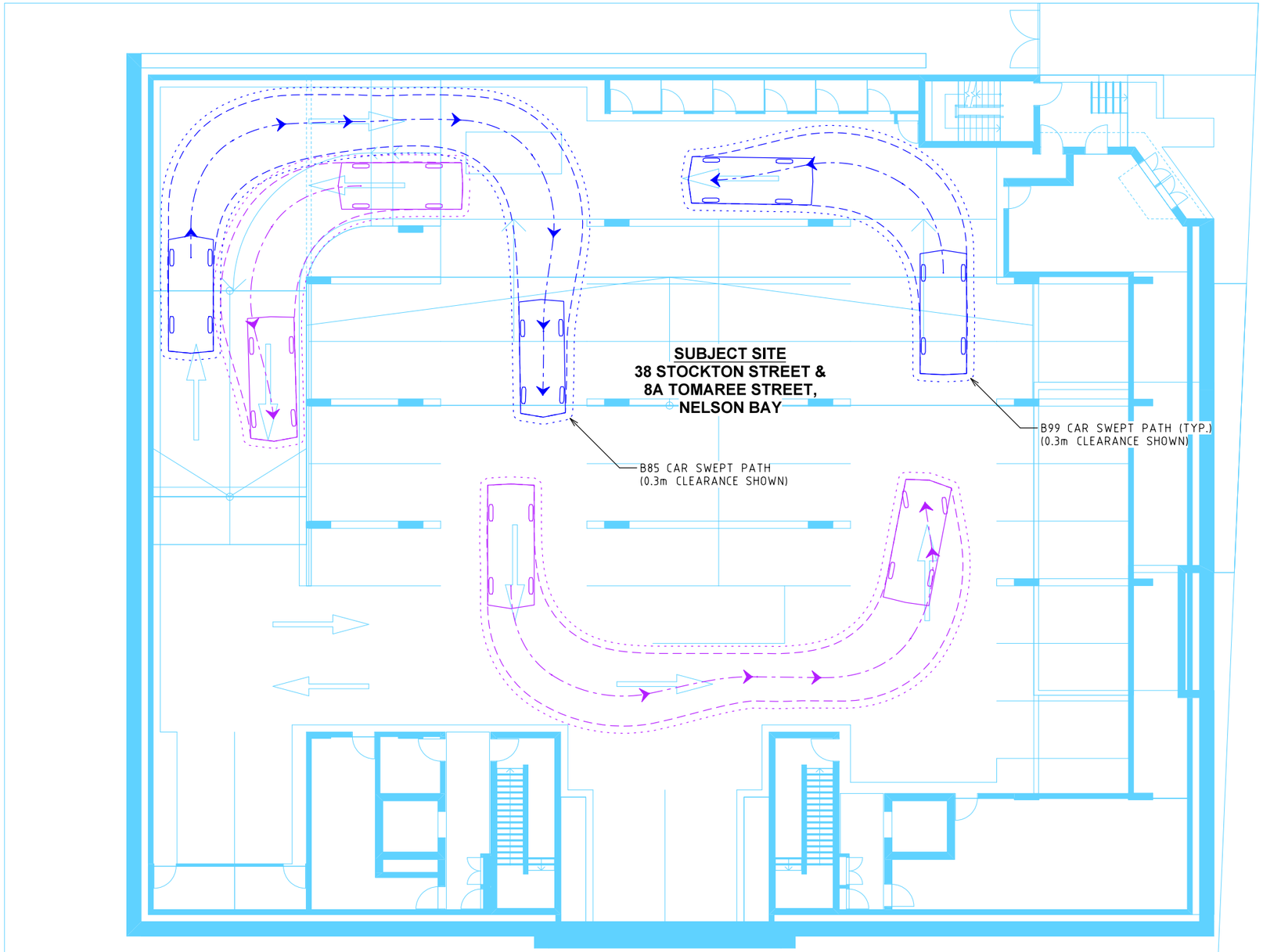
38 STOCKTON STREET & 8A TOMAREE STREET
NELSON BAY, NSW
GROUND LEVEL
B99 ACCESS & EGRESS

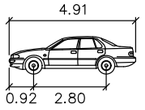
DOCUMENT NUMBER

Job Number	Sheet No.	Rev.
WGA241958-DR-TT-1001		C

Design J.M Drawn J.M

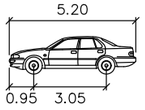


DESIGN VEHICLES



B85

	meters
Width	: 1.87
Track	: 1.77
Lock to Lock Time	: 6.0
Steering Angle	: 34.1



B99

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

When sheet printed full size, the scale bar is 50mm.

0 25 50mm

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2 1 0 2 4

SCALE BAR (m)
1:200 @ A3

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38 STOCKTON STREET & 8A TOMAREE STREET
NELSON BAY, NSW
LOWER GROUND LEVEL
B85 & B99 CAR CIRCULATION

DOCUMENT NUMBER

Design	Drawn	Job Number	Sheet No.	Rev.
J.M	J.M	WGA241958-DR-TT-1002		C

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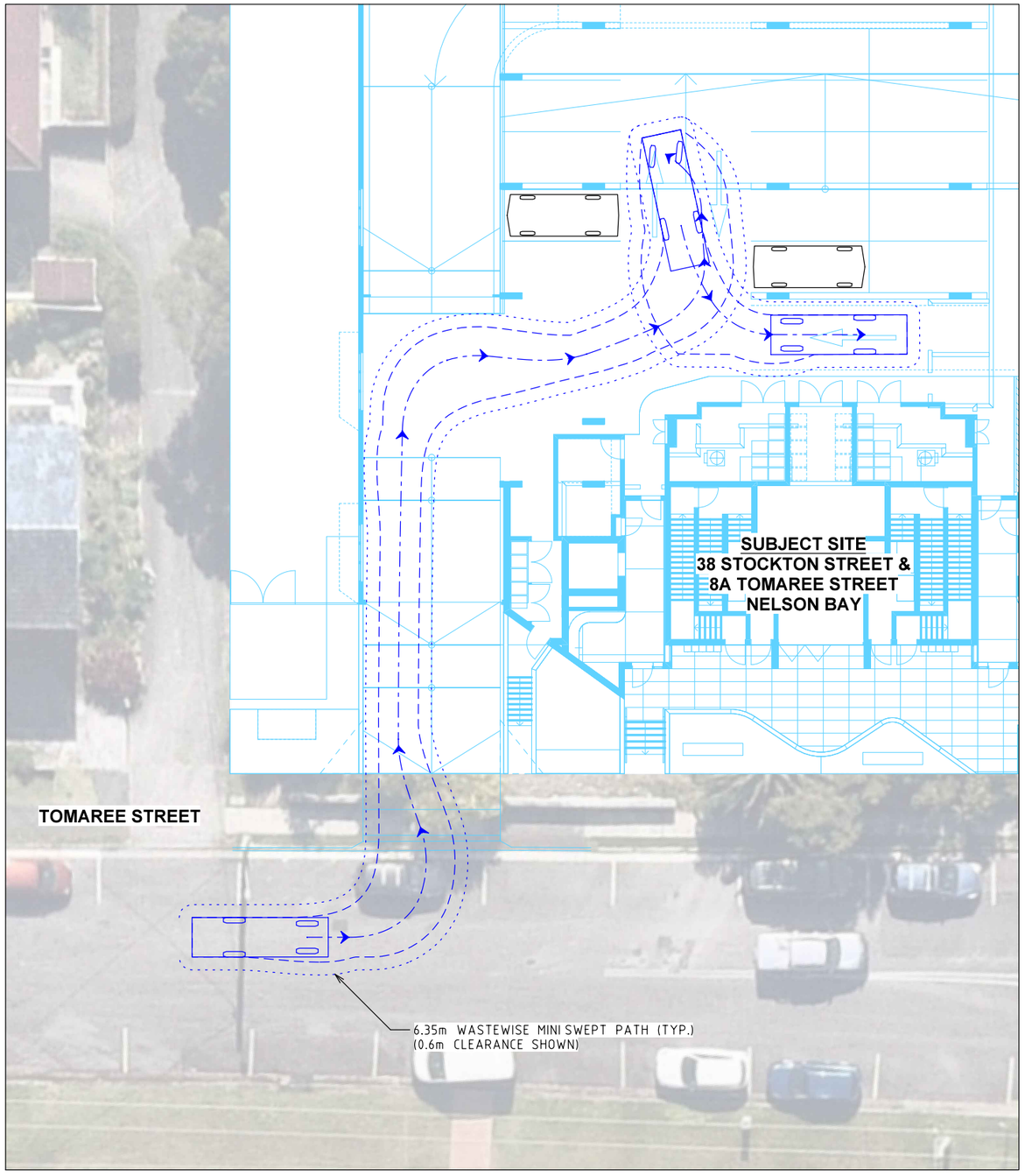
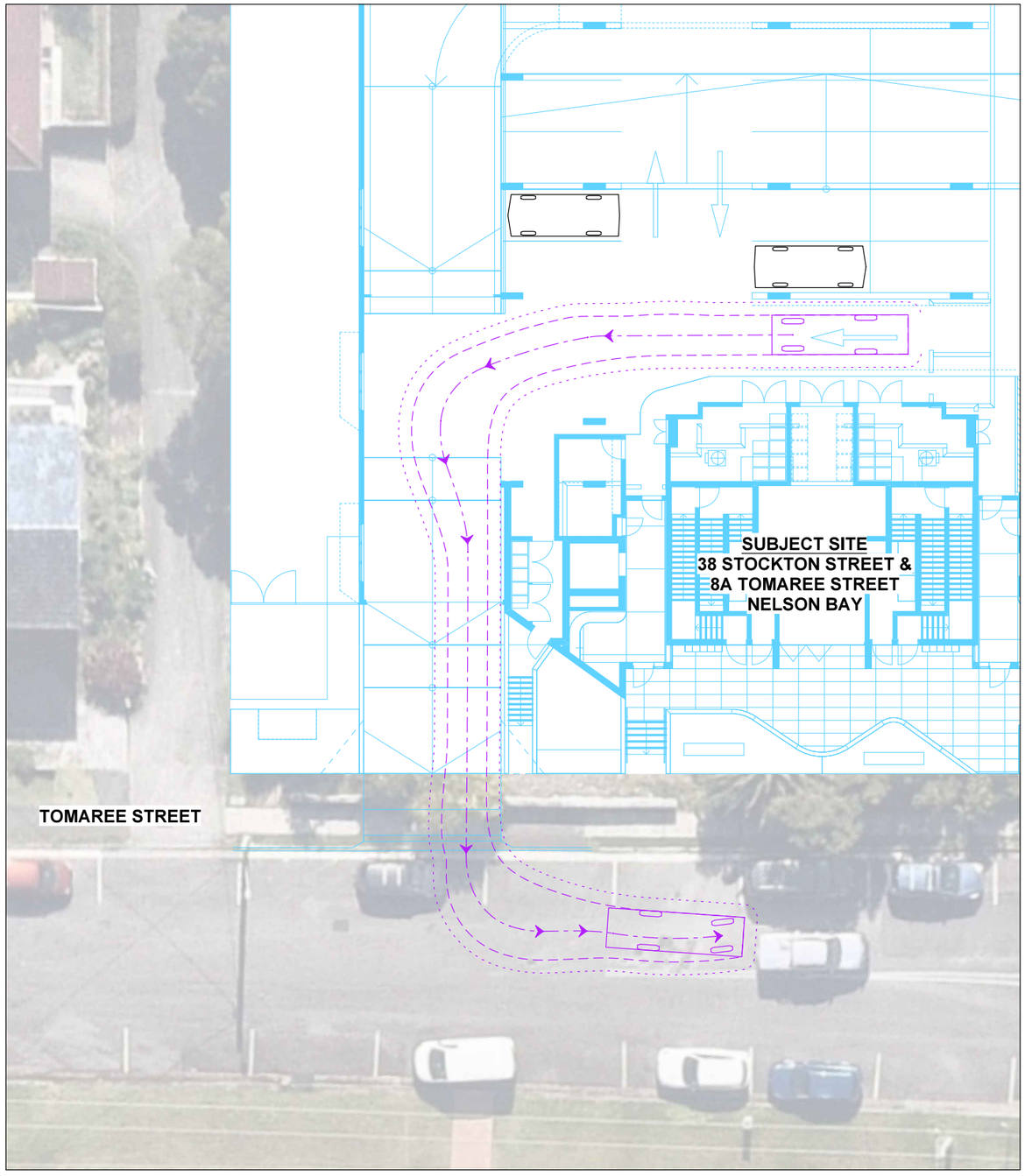
INGRESS MOVEMENT



EGRESS MOVEMENT



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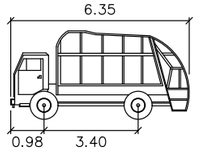

WASTEWISE MINI

	meters
Width	: 1.84
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 45.4

When sheet printed full size, the scale bar is 50mm.

0 25

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2.5 1.25 0 2.5 5

SCALE BAR (m)
1:250 @ A3

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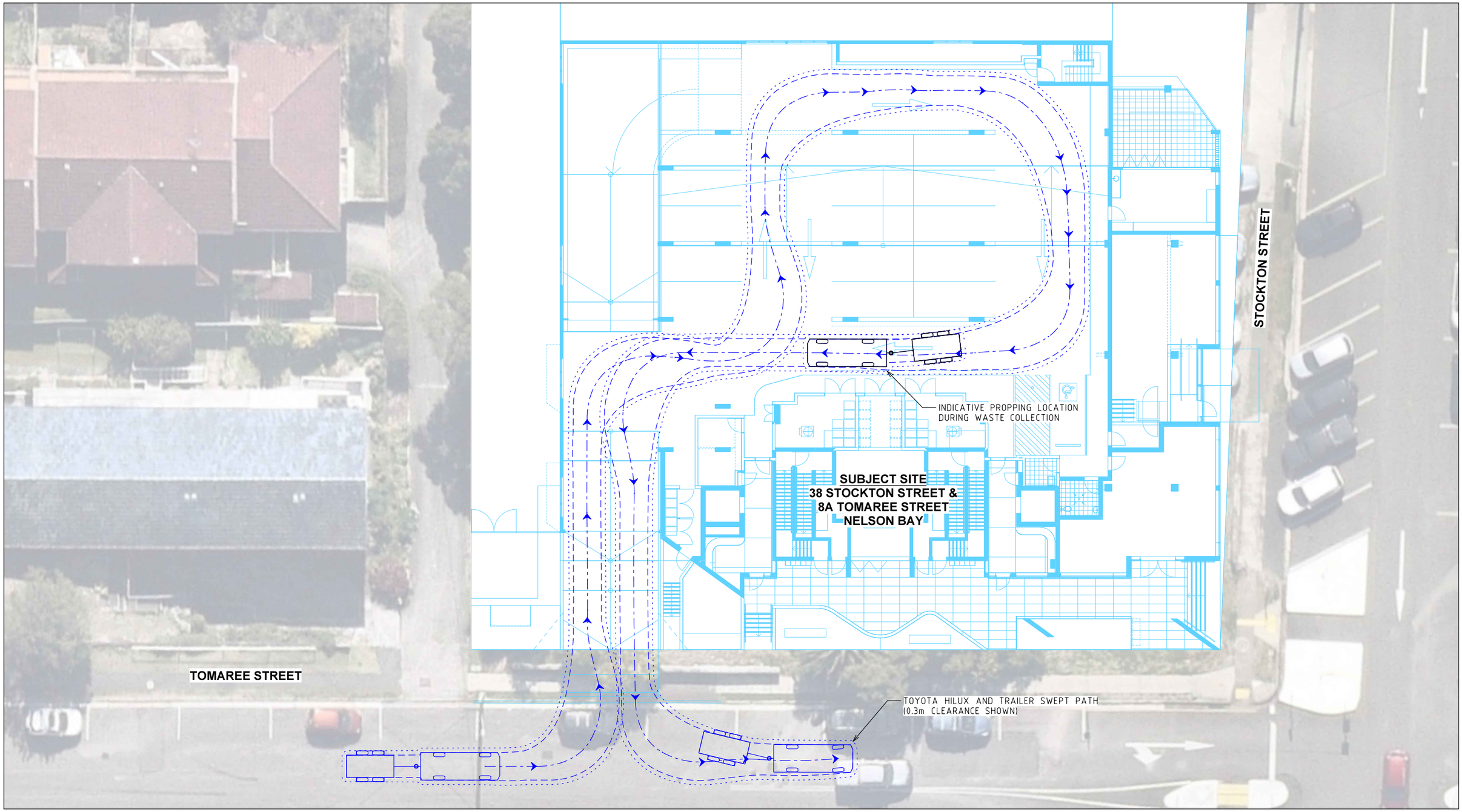
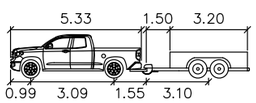
38 STOCKTON STREET & 8A TOMAREE STREET
NELSON BAY, NSW
GROUND LEVEL
6.35m WASTE COLLECTION VEHICLE ACCESS & EGRESS

DOCUMENT NUMBER

Design	Drawn	Job Number	Sheet No.	Rev.
J.M	J.M	WGA241958-DR-TT-1003		C



DESIGN VEHICLE



Toyota Hilux SR5 and 10x5 Trailer

	meters		meters
Car Width	: 1.86	Lock to Lock Time	: 6.0
Car Track	: 1.82	Steering Angle	: 36.3
Trailer Width	: 1.50	Articulating Angle	: 70.0
Trailer Track	: 2.07		

When sheet printed full size, the scale bar is 50mm.

0 25 50mm

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2.5 1.25 0 2.5 5

SCALE BAR (m)
1:250 @ A3

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NELSON BAY, NSW
GROUND LEVEL
UTE & TRAILER CIRCULATION ©

DOCUMENT NUMBER
Job Number Sheet No. Rev.
WGA241958-DR-TT-1005 A

Design J.M Drawn J.M

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