

Traffic Impact Assessment

2-6 Martin Street, Roselands

22013

Prepared for
Mr. De Ming Chen

1 September 2022



Contact Information

Genesis Traffic	Suite 521, 7 Eden Park Drive Macquarie Park
	www.genesistraffic.com.au
	ABN 34 660 055 532
Phone	+61 (02) 7253 2833
Approved By	Bernard Lo

Document Information

Report	Traffic Impact Assessment
Prepared for	Mr. De Ming Chen
Architects	BKA Architects
Project Name	2-6 Martin Street, Roselands
Council	Canterbury Bankstown Council
Job Reference	22013
Date	1/09/2022
Version Number	4

Document History

Version	Effective Date	Description of Revision	Prepared by	Reviewed by
1	12/08/2022	Draft	Lamone Ng	Bernard Lo
2	17/08/2022	A	Lamone Ng	Bernard Lo
3	19/08/2022	B	Lamone Ng	Bernard Lo
4	01/09/2022	C	Lamone Ng	Bernard Lo



Table of Contents

1	Introduction	5
1.1	Background	5
1.2	Scope of Works	5
1.3	Reference Documents	6
2	Existing Conditions	7
2.1	Site and Surrounding Context	7
2.2	Road Network	7
2.3	Traffic Controls	8
2.4	Public Transport Services	8
2.5	Existing Traffic Conditions	8
3	Proposed Development	10
4	Parking Assessment	11
4.1	Car Parking Requirements	11
4.2	Internal Circulation	11
5	Servicing Arrangement	12
6	Traffic Assessment	13
6.1	Existing Traffic Generation	13
6.2	Development Traffic Generation	13
6.3	Overall Traffic Generation and Distribution	13
7	Conclusion	14

Attachments

Attachment 1 Architectural Plans

Attachment 2 Turning Path Assessment

Tables

Table 2-1	AADT	9
Table 4-1	DCP Car Parking Rates	11



Figures

Figure 1-1	Site	5
Figure 2-1	Site Context	7



1 Introduction

1.1 Background

This report has been prepared to accompany a Development Application to Canterbury Bankstown Council for a proposed residential development at 2-6 Martin Street, Roselands (Figure 1-1).

Figure 1-1 Site



Source: Nearmap

The proposed development involves amalgamating an approved development (DA-84/2020) site 4-6 Martin Street with 2 Martin Street and construct a multi-housing building comprising 4 x 3 bed dwellings at 2 Martin Street.

1.2 Scope of Works

The purpose of this report is to:

- describe the site and the proposed development scheme
- describe the road network serving the site and the prevailing traffic conditions



- assess the adequacy of the proposed parking provision
- assess the potential traffic implications
- assess the suitability of the proposed vehicle access, internal circulation and servicing arrangements

1.3 Reference Documents

Reference has been made to the following documents when preparing this report:

- AS2890 (Australian/NZ Standards, 2004)
- Development Control Plan (Canterbury Bankstown Council, 2014)
- RMS Guide to Traffic Generating Developments, RTA, 2002
- Statement of Environmental Effects, Slattery Planning Group, Ref 22001, 1 September 2022



2 Existing Conditions

2.1 Site and Surrounding Context

The development site (Figure 2-1) is a consolidation of Lots 2, 3 and 4 in DP 210492, located at 2-6 Martin Street, Roselands. The site occupies an irregular-shaped area of 2,360m² and is bounded by Martin Street to the south. Industrial developments adjoin the west, while the east and south are generally low-density residential developments.

Figure 2-1 Site Context



Source: Mecone

A single-storey residential dwelling occupies 2 Martin Street at present. Construction is underway for the approved development (DA-84/2020) at 4-6 Martin Street.

2.2 Road Network

The road network serving The Ponds area comprises:

- South-Western Motorway/M5 East: A Motorway (6005) traverses east-west between Sydney Airport and Casula. It is subject to 100km/h speed zoning and permits 3 lanes of traffic in both directions, separated by a median.
- King Georges Road: A Classified Main Road (MR 200) that traverses north-south between Punchbowl Road in the north and Princess Highway in the south. It is subject to 60km/h speed zoning and permits 3 lanes of traffic in both directions on a divided carriageway. Clearway restrictions from 6:00 am to 7:00



pm Monday to Friday and 9:00 am to 6:00 pm apply along the outer lanes of the street. On-street parking is not permitted along both sides of the road.

- Canterbury Road: A sub-arterial Main Road (MR 167) that traverses east-west between Old Canterbury in the east and Milperra Road in the west. It is subject to 60km/h speed zoning and permits 2 lanes of traffic within a divided carriageway. Clearway restrictions from 6:00 am to 7:00pm Monday to Friday and 9:00 am to 6:00 pm apply along the outer lanes of the street. On-street parking is not permitted along both sides of the road.
- Bonds Road: a collector road traverses north-south between Canterbury Road in the north and Forest Road in the south. It is subject to 50km/h speed zoning and permits a single lane of traffic within a divided carriageway. On-street parking is generally permitted along either side of the street.
- Martin Street and Roselands Drive: Local roads traverses east-west between King Georges Road in the east and Bonds Road in the west. It is subject to a 50km/h speed zoning and generally consists of a single traffic lane in either direction. On-street parking is permitted on both sides of the street.

2.3 Traffic Controls

The traffic controls on the road system in the vicinity of the site comprise:

- the roundabout control at the intersections of:
 - Martin Street and Bonds Road
 - Martin Street and Daisy Street
 - Bonds Road, Payten Avenue and Werona Avenue
- the traffic control signal at the intersections of:
 - Roselands Drive and King Georges Road
 - King Georges Road

2.4 Public Transport Services

The subject site is located within walking distance (120m) of the nearest bus stop operating in the locality. The bus stop has access to Route 942, connecting Lugarno and Campsie.

2.5 Existing Traffic Conditions

An indication of traffic conditions on the site's road system is provided by data published by the Roads and Maritime Services (RMS). The RMS data is expressed in Average Annual Daily Traffic (AADT), and the most recently recorded Victoria Road traffic flows in the site's vicinity are shown in Table 2-1 below.



Table 2-1 AADT

Location	Northbound	Southbound
King Georges Road, 30m north of Roseland Avenue		
2018	29,957	35,496

Observations in the site's locality reveal significant traffic volumes on King Georges Road during peak commuting periods. While traffic movements are delayed on the arterial road, the flow of traffic continues to be managed by the SCATS coordinated signals, which in turn impose longer delays to secondary streets, i.e. King Georges and Canterbury Road, in the context of this proposal.

Martin Street traffic was observed to be generally free-flowing with no apparent capacity constraint.



3 Proposed Development

The proposal seeks consent for the following works:

No.2 Martin Street

Demolish existing buildings on the site and construct a new multi-housing building development comprising 4 dwellings. Each dwelling will comprise 3 bedrooms.

Each dwelling will comprise a garaged car space with opportunity to park a second vehicle on the driveway. The new dwellings will be accessed via 2 new vehicle access driveways at Martin Street.

Nos. 4 & 6 Martin Street

Alterations and additions to DA 84/2020 to change its property boundary to include No.2 Martin Street.

Details of the proposal are indicated in the architectural plans prepared by BKA Architects which accompany the submission and are reproduced in part in Attachment 1.





4 Parking Assessment

4.1 Car Parking Requirements

DCP

The DCP provides the following minimum car parking criteria for residential developments in Table 4-1.

Table 4-1 DCP Car Parking Rates

Type	Parking Rates
Studio or One-bedroom	1 space per dwelling
Two-bedroom	1.5 spaces per dwelling
Three-bedroom	2 spaces per dwelling

SEPP 65

The applicable SEPP (Housing) 2021 specifies a criterion of 1.5 spaces per dwelling.

Requirement

Based on the above, the proposal entailing 4 x 3-bed dwellings would indicate a requirement of 8 spaces by the DCP or 6 spaces by the SEPP.

Proposed Provision

The proposal is to provide 1 garaged parking space for each dwelling plus opportunity for each dwelling to park a second vehicle (if required) on the driveway. The proposal satisfies the criteria.

4.2 Internal Circulation

A detailed review of the car park has been undertaken to confirm the provisions made for the following elements conform with the AS2890.1 design criteria (for domestic driveways):

- Car park geometry
- Driveway width
- Ramp grades & Transitions
- Headroom
- Turning provision

Details of a swept path analysis demonstrating the above are provided in Attachment 3.



5 Servicing Arrangement

Refuse collection will occur via the road frontage by Council's waste collection services. Any occasional servicing activities can also be satisfied by the ample kerbside parking, as is typical for a small development of this nature.





6 Traffic Assessment

6.1 Existing Traffic Generation

The RMS Guide to Traffic Generating Developments (TDT 2013/04a) specify a single dwelling's peak traffic generation rate as 0.85 vtpd during the busiest peak hour. On this basis, the existing development on the site would generate in the order of 1 vtpd.

6.2 Development Traffic Generation

The RMS Guide to Traffic Generating Developments (2002) specifies a range of peak hour traffic generation rates for medium-density residential development, as follows:

Smaller (one bed) units 0.5 vtpd per unit

Larger (two-three bed) units 0.65 vtpd per unit

The approved development on 4 and 6 Martin Street are assessed as acceptable under the underpinning traffic assessment. On similar basis, the 4 x 3-bed dwellings would generate in the order of 3 vtpd during the busiest peak hour.

6.3 Overall Traffic Generation and Distribution

Based on the above, the additional traffic generation¹ will equal an average of:

Development traffic (3 vtpd) – existing traffic (1 vtpd) = 2 vtpd

Traffic generation of this order of magnitude represents an average flow of 1 vehicle movement every 30 minutes and will not present any difficulty or perceptible impact on the intersections in the vicinity of the site.

The assessment found the proposal to have no adverse traffic implications on the local road network.

¹ Traffic generation/movements that have not been assessed as part of the previously approved development scheme at 4-6 Martin Street.



7 Conclusion

The traffic and parking assessment undertaken for the proposed residential development at 2-6 Martin Street, Roselands has concluded that:

- > the traffic generation of the proposed development will not present any adverse traffic implications
- > the proposed car parking arrangements are consistent with the SEPP and DCP design/planning principles
- > the proposed vehicle access arrangements will not have any adverse safety or operational implications
- > the proposed car parking and manoeuvre are consistent with the design principles of AS2890.1:2004





Attachment 1

Architectural Plans



MultiUnit Dwelling House & Affordable Housing

2-6 Martin St, Roselands NSW 2196 Australia
Alterations and additions to the development approved at Nos. 4-6 Martin Street to accommodate No. 2 Martin Street and the proposed four additional dwellings

Drawing List		
ID	Layout Name	Scale
DA-000	Cover Page	
DA-010	Site Analysis Plan & Demolition Plan	1:100
DA-100	Ground Floor Plan	1:100
DA-101	First Floor Plan	1:100
DA-102	Roof Plan	1:100
DA-200	South & East Elevation	1:50
DA-201	North & West Elevations	
DA-210	Section A-A	
DA-220	Material Finishes	
DA-300	GFA Calculation	1:200
DA-301	Landscaped / Deep Soil Area	1:200
DA-310	Solar Study	
DA-311	Solar Study	
DA-320	Shadow Diagram	
DA-321	Shadow Diagram	
DA-400	Adaptable Unit Plan	



View from Martin Street

Consultants

- 1. Planning**
Slattery Planning Group
Genevieve info@slatteryplanning.com.au
- 2. Surveyor:**
Innovative Surveying Associates
Shuwen Li 0422 879 956 info@sagroups.com.au
- 3. Quantity Surveyor:**
J. Kelly
David Madden 02 9270 1000 dm@mbmpl.com.au
- 4. Traffic :**
Genesis Traffic
Bernard Lo 0433 813 687 bernard@genestraffic.com.au
- 5. Landscape Architect:**
Lisound Landscape
Sarah Yan 0413 410 954 lisound2010@gmail.com
- 6. BCA/Access :**
Design Right Consulting
Aleks Stojcovic 0405 295 978 aleks@designrc.com.au

FOR DA PURPOSES			
CONSULTANT 01	CONSULTANT 02	CONSULTANT 03	CONSULTANT 04
CONSULTANT 05	CONSULTANT 06	CONSULTANT 07	CONSULTANT 08
NOT FOR CONSTRUCTION			
BKA architectural			
PROJECT			
2-6 Martin St, Roselands NSW 2196 Australia			
DRAWING			
COVER PAGE			
PROJECT #			
21			
SCALE & A1			
DA-000			
J.K.			



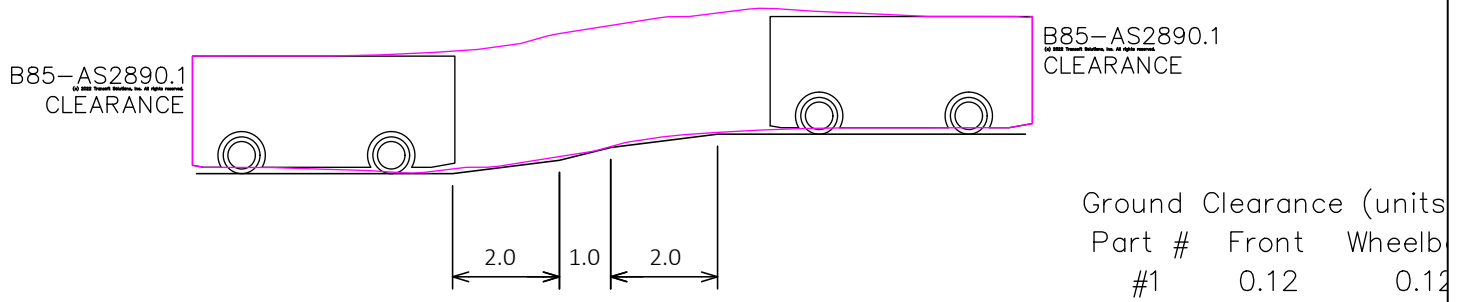
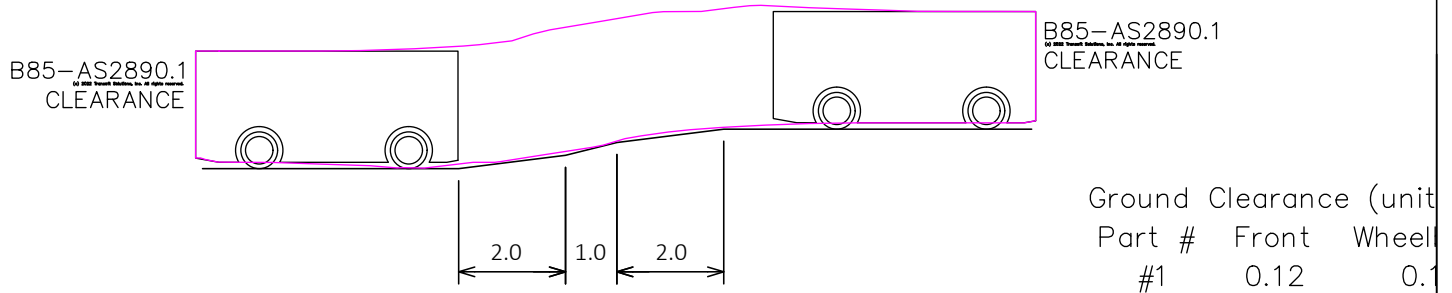
Attachment 2

Turning Path Assessments









2-6 MARTIN STREET, ROSELANDS
GROUND CLEARANCE TEST
SWEEP PATH ASSESSMENT

DRAWING REF NO. 22013-V1.3-5P

SHEET NO. 03 OF023

ISSUE DATE 19 August 2022

DESIGNED BY
L.N.G

REVIEWED BY
B.L.O

PRELIMINARY PLAN
FOR DISCUSSION PURPOSES
ONLY SUBJECT TO CHANGE
WITHOUT NOTIFICATION

WARNING
THIS DRAWING IS FOR DISCUSSION PURPOSES
ONLY. IT IS NOT TO BE USED FOR
CONSTRUCTION OR FOR ANY OTHER
PURPOSE WITHOUT THE WRITTEN
CONSENT OF THE ENGINEER.

SCALE
A3 0 1.0 2.0 1:100



 **Genesis Traffic**



Enabling Decent Land Use