APPENDIX 4: PARKING AND TRAFFIC ADVICE

Traffix Group

Traffic Engineering Report

Genazzano FCJ College – Amended Masterplan

301 Cotham Road, Kew

Prepared for
Genazzano FCJ College

December 2022

G31624R-01F

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Appendix A Amended Masterplan

Appendix B Swept Path Diagrams

1. Introduction

Traffix Group has been engaged by Genazzano College to prepare a Traffic Engineering Report for a proposed amendment to the masterplan for the site.

The following report provides a traffic engineering review of car parking, access, traffic, bicycle parking and waste collection considerations associated with the amended masterplan.

2. Existing Conditions

2.1. Subject Site

2.1.1. Site Locality

The site is located on the north-west corner of the Cotham Road/Mont Victor Road intersection in Kew, as shown in the locality map at Figure 1.

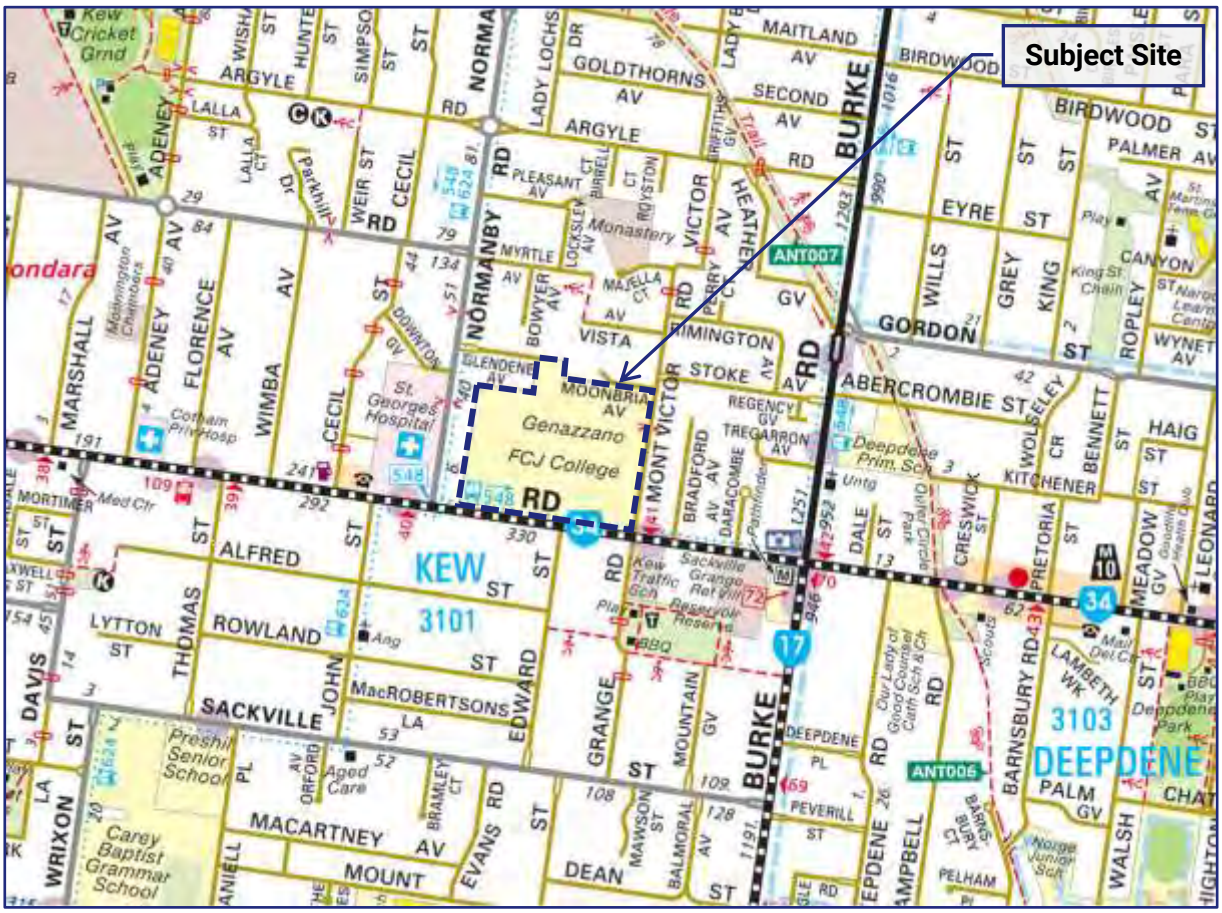


Figure 1: Locality Map

The subject site has a total area of approximately 6.9ha with frontages to Cotham Road, Mont Victor Road, Moonbria Avenue and Glendene Avenue of approximately 282m, 232m, 131m and 15m respectively.

2.1.2. Site Access

Access to the site is as follows:

- Gate 1 - located on Cotham Road – pedestrian access and vehicular entry and exit.
- Gate 2 - located on Cotham Road – vehicle exit only.
- Gate 3 – located on Mont Victor Road – vehicular entry only.
- Gate 4 – located on Mont Victor Road –pedestrian access and vehicular exit only.
- Gate 7 – located on Moonbria Avenue – pedestrian access only.
- Gate 8 – located on Glendene Avenue – pedestrian access and emergency vehicle access.

An aerial view of the site outlining these access points is provided at Figure 2.

Figure 2: Site Access Locations

2.1.3. On-site Car Parking Provisions

The following car and bus parking provisions are currently provided on the site:

- 23 dedicated car parking spaces (including one disabled space) on circuit road between the Performing Arts Centre and Wardell Building, used for drop off only/pick-up only for parents of junior school students during school hours and accessible for all users after hours,
- 40 dedicated car parking spaces within the car parking area adjacent to Mont Victor Road,
- 17 dedicated car parking spaces within the car parking area adjacent to the maintenance area,
- 69 dedicated car parking spaces within car parking areas adjacent to Cotham Road,
- 7 drop-off/pick-up spaces accessible from the Cotham Road access points,
- 4 bus parking during school hours/8 car parking spaces outside of school hours, accessible from the Cotham Road access points, and
- 4 bus parking spaces adjacent to Centenary Hall.

Accordingly, the following general car parking provisions are available during and after school hours:

- During school hours – 126 spaces.
- After school hours – 168 spaces.

These provisions are shown in Figure 3 below.

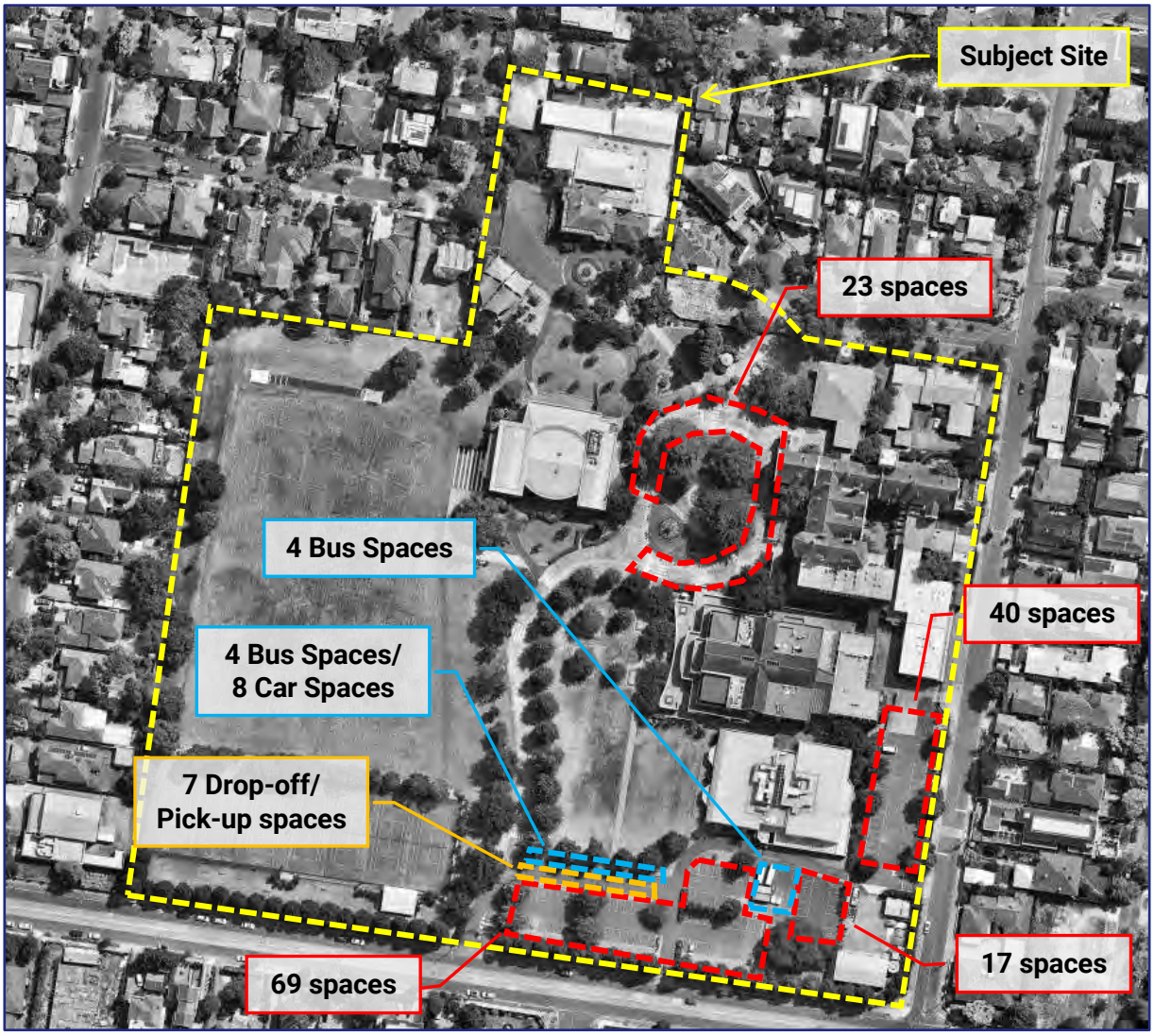


Figure 3: On-site Car Parking Provisions

2.2. Land Use

The subject site is located within a Neighbourhood Residential Zone – Schedule 3 (NRZ3) under the Boorondara Planning Scheme as shown in the land use zoning map at Figure 4 below.

The site is also subject to the following planning overlays:

- Development Plan Overlay – Schedule 2 (DPO2), and
- Heritage Overlay (HO252).

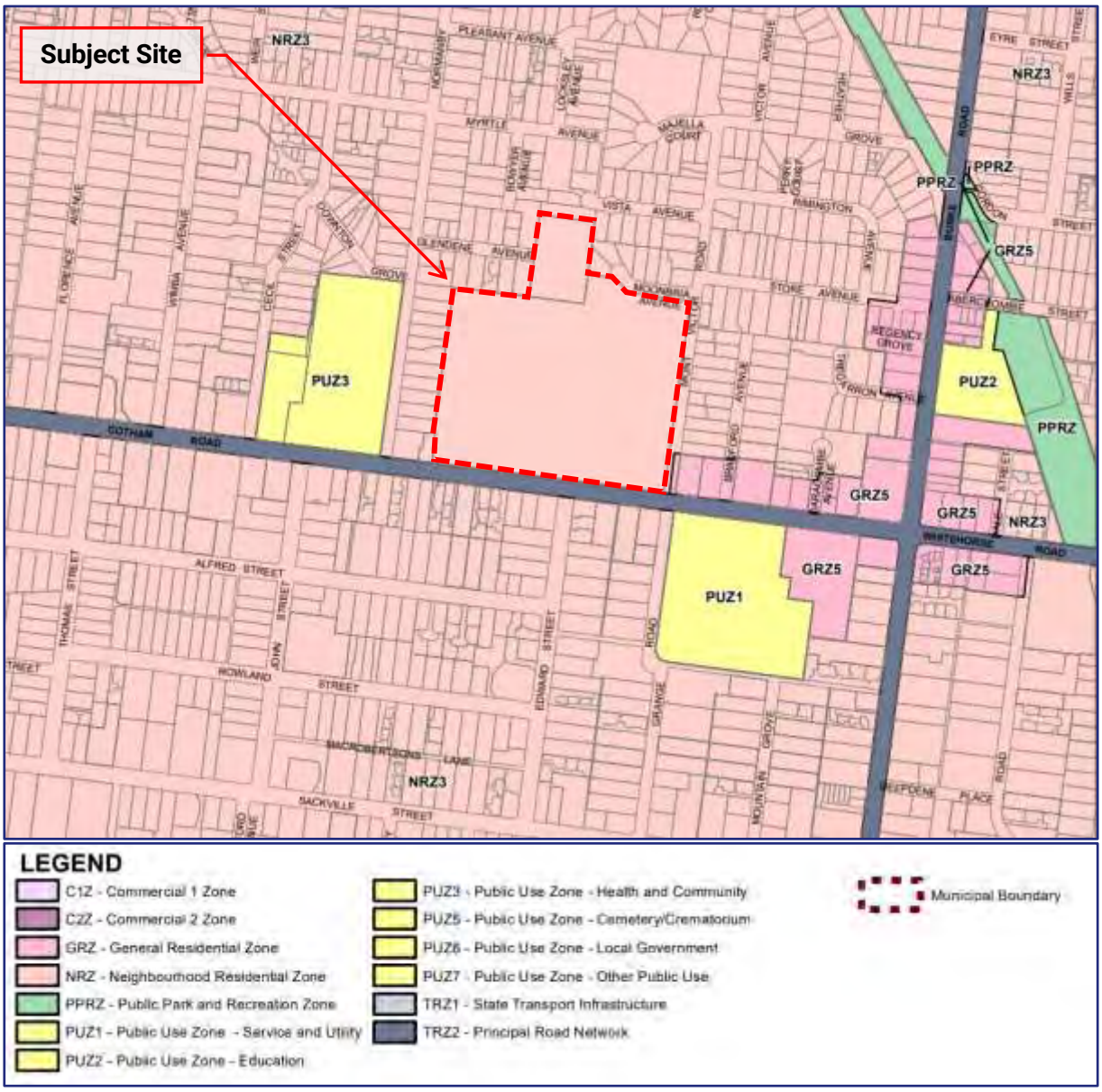


Figure 4: Land Use Zoning Map

The site is generally surrounded by other residential areas in all directions. Non-residential uses in the immediate vicinity of the site include:

- St Georges Hospital, located approximately 50m west of the subject site within the Public Use Zone – PUZ3, and
- Reservoir Reserve, located immediately south-east of the site within the Public Use Zone – PUZ1.

2.3. Road Network

2.3.1. Cotham Road

Cotham Road is a state declared arterial road and zoned TRZ2 – Principal Road Network under the Booroondara Planning Scheme. Cotham Road extends for approximately 2.6km in an east-west direction from Burke Road (where it continues at Whitehorse Road) and High Street.

In the vicinity of the subject site, Cotham Road is constructed with an approximately 14m wide carriageway providing two through traffic lanes in each direction with the central lanes accommodating tram tracks.

Unrestricted parallel on-street parking is permitted in the kerbside lanes outside of the following clearway times:

- eastbound – 4:30pm-6:30pm Monday-Friday, and
- westbound – 7:00am-9:00am Monday-Friday.

Footpaths are provided on both sides of the road.

A posted speed limit of 60km/h applies to Cotham Road in the vicinity of the site, with a reduced 40km/h school zone speed limit in force from 8am-9:30am and 2:30pm-4pm on school days.

Photographs of Cotham Road, taken in the vicinity of the subject site, are presented in Figure 5 and Figure 6 below.

Figure 5: Cotham Road - View East

Figure 6: Cotham Road - View West

2.3.2. Mont Victor Road

Mont Victor Road is identified as a local access road in the Booroondara Register of Public Roads and extends for approximately 450m in a north-south direction from Majella Court (where it continues as Victor Avenue) to Cotham Road (where is continues as Grange Road).

In the vicinity of the subject site, Mont Victor Road is constructed with an approximately 9m wide carriageway providing for through traffic in both directions and kerbside parallel parking on both sides of the street.

Footpaths are provided on both sides of the street.

A posted speed limit of 40km/h applies to Mont Victor Road in the vicinity of the site.

Photographs of Mont Victor Road are presented in Figure 7 and Figure 8 below.

Figure 7: Mont Victor Road - View North

Figure 8: Mont Victor Road - View South

2.3.3. Moonbria Avenue

Moonbria Avenue is identified as a local access road in the Booroondara Register of Public Roads and extends for approximately 100m in an east-west direction from Mont Victor Road to a dead-end court bowl.

In the vicinity of the subject site, Moonbria Avenue is constructed with an approximately 6.6m wide carriageway providing for through traffic in both directions and staggered kerbside parallel parking on both sides of the street.

Footpaths are provided on both sides of the street.

Photographs of Moonbria Avenue are presented in Figure 9 and Figure 10 below.

Figure 9: Moonbria Avenue - View East

Figure 10: Moonbria Avenue - View West

2.3.4. Glendene Avenue

Glendene Avenue is identified as a local access road in the Booroondara Register of Public Roads and extends for approximately 135m in an east-west direction from a dead end adjacent to Genazzano College to Normanby Road.

In the vicinity of the subject site, Glendene Avenue is constructed with an approximately 7.7m wide carriageway providing for through traffic in both directions and kerbside parallel parking on both sides of the street.

Footpaths are provided on both sides of the street.

Photographs of Glendene Avenue are presented in Figure 11 and Figure 12 below.

Figure 11: Glendene Avenue - View East

Figure 12: Glendene Avenue - View West

2.3.5. Normanby Road

Normanby Road is identified as a collector road in the Booroondara Register of Public Roads and extends for approximately 1.4km in a north-south direction from High Street to Cotham Road.

In the vicinity of the subject site, Normanby Road is constructed with an approximately 9.1m wide carriageway providing for through traffic in both directions and kerbside parallel parking on both sides of the street.

Footpaths are provided on both sides of the street.

Photographs of Normanby Road are presented in Figure 13 and Figure 14 below.

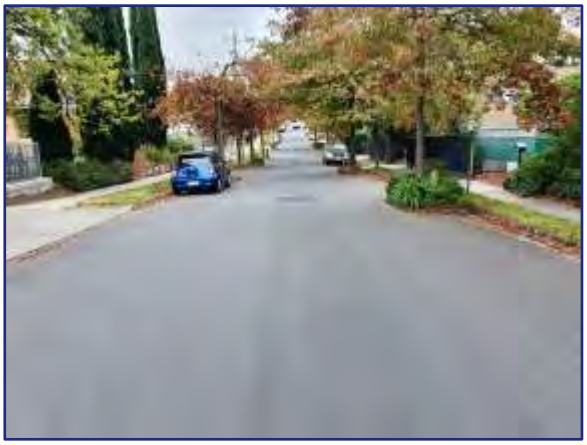


Figure 13: Normanby Road – View North

Figure 14: Normanby Road - View South

2.4. Sustainable Transport

2.4.1. Principal Public Transport Network (PPTN)

The subject site is located within the PPTN area, as shown in Figure 15 below.

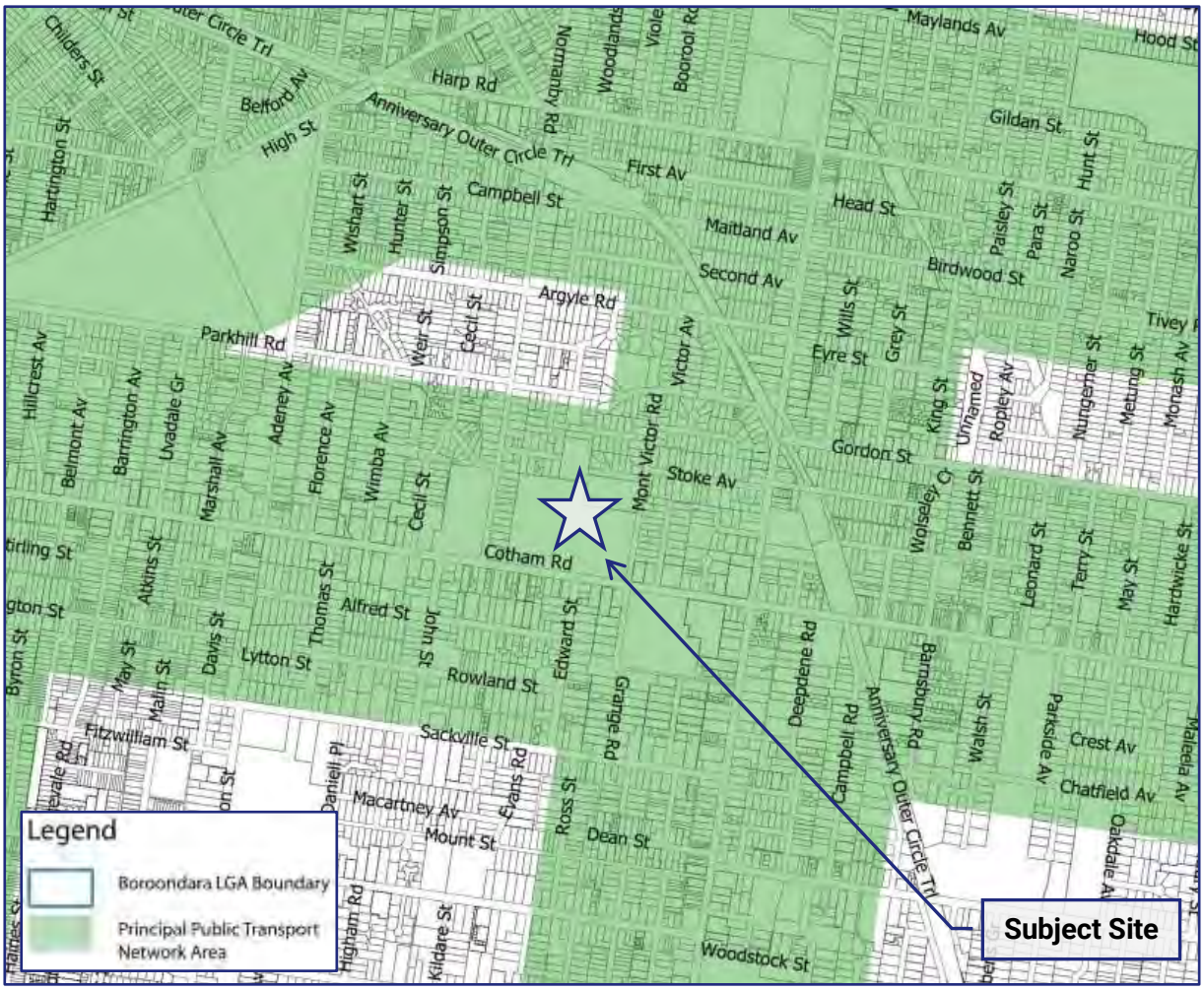


Figure 15: PPTN Area Map

2.4.2. Public Transport

A summary of the public transport services operating in close proximity to the subject site is as follows:

- Tram Route 109 operates between Box Hill and Port Melbourne with stops provided on Cotham Road immediately east of Mont Victor Road,
- Tram Route 72 operates between Melbourne University and Camberwell with stops provided on Burke Road within approximately 350 walking distance of the subject site,
- Bus Route 548 operates between Kew and La Trobe University Bundoora with stops provided on Cotham Road along the site's frontage, and
- Bus Route 624 operates between Kew and Chadstone via Oakleigh, Caulfield, Carnegie and Darling, with stops provided on Normanby Road within approximately 150m walking distance of the subject site.

These services as well as other services operating in the vicinity of the subject site are shown in the Public Transport Map at Figure 16 below.

Figure 16: Public Transport Map

2.5. Existing Traffic Volumes

Traffix Group has commissioned traffic counts at the site's vehicular access points. The counts were undertaken on Wednesday 11th May between 7:00am and 6:00pm. A summary of the total vehicle movements entering and exiting the site throughout the surveyed period is provided in Figure 17 below.

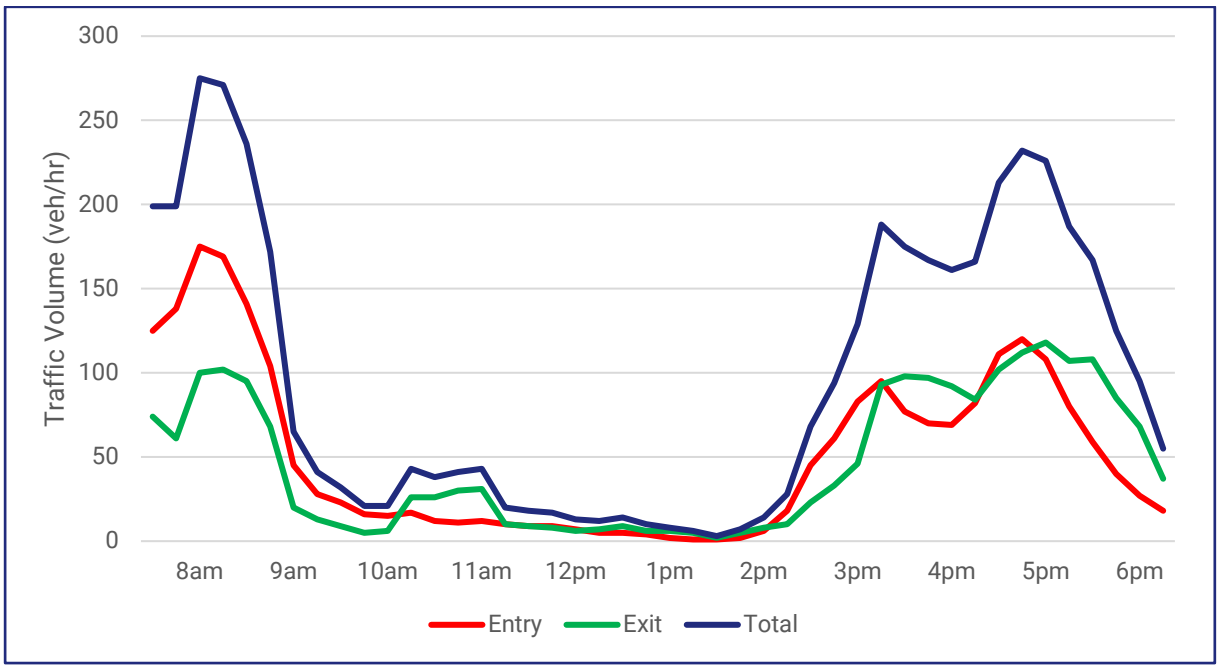


Figure 17: Summary of Site Traffic Movements

A morning peak was observed between 7:30am and 8:30am with two afternoon peaks observed from 2:45pm to 3:45pm and 4:15pm to 5:15pm likely associated with school finishing time (and associated student pick-up) and staff leaving the site respectively.

A summary of the vehicle movements entering and exiting the site during the AM, early PM and late PM peak hour is provided in Figure 18, Figure 19 and Figure 20 respectively.

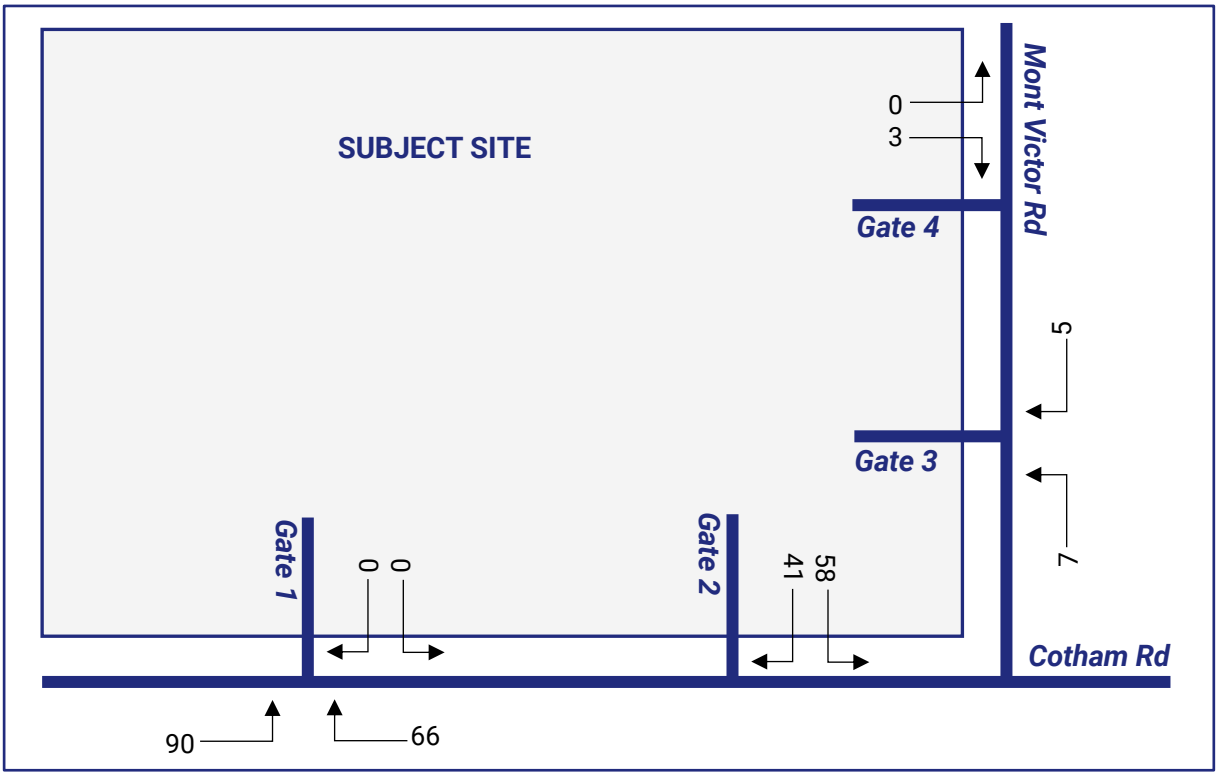


Figure 18: AM Peak Hour - Site Traffic Volumes

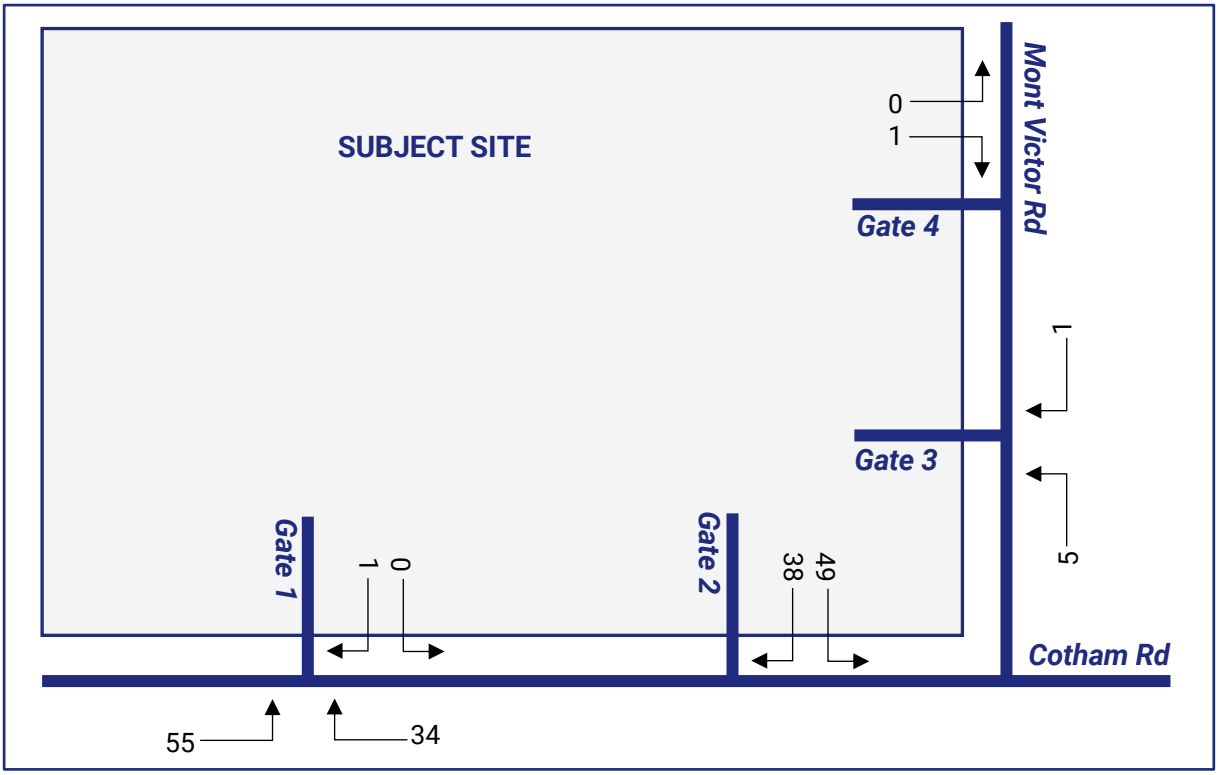


Figure 19: Early PM Peak Hour - Site Traffic Volumes

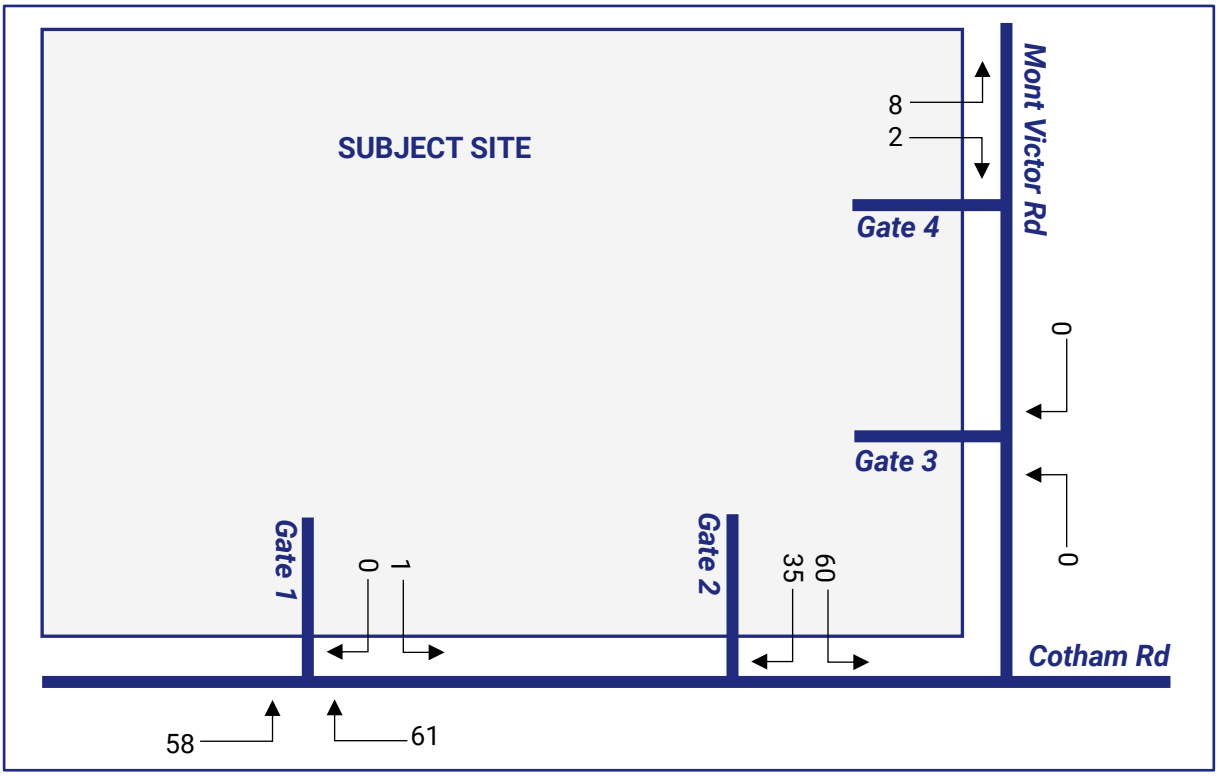


Figure 20: Late PM Peak Hour - Site Traffic Volumes

Notably, the vast majority of vehicle movements entering and exiting the site are from the Cotham Road access points with limited use of the Mont Victor Road access points.

3. Endorsed Masterplan

The existing masterplan for the site (dated June 2020) was endorsed on 14th December 2020 and includes the following details relating to the intensity of the use:

- Maximum student numbers – 1,150
- Full-time equivalent teachers - 160

The following car parking provisions are outlined in the masterplan:

- During school hours – 112 spaces.
- After school hours – 158 spaces.

We note that the car parking provisions currently on-site (126 spaces during school hours and 168 spaces after school hours) as outlined in section 2.1.3, exceed those outlined in the endorsed masterplan.

4. Amended Masterplan Proposal

The amended masterplan proposes a new school entry and student services facilities to be constructed which will include a range of DDA interventions to provide a fully accessible campus. To facilitate the proposed changes and new buildings included in the amended masterplan, the following key changes are proposed to the site's traffic and waste management arrangements:

- removal of the Gate 4 access to the site,
- conversion of Gate 3 to entry and exit,
- removal of three staff car parking spaces from the car parking area adjacent to Mont Victor Road, and
- relocation of the existing bin storage and waste collection area from its current location adjacent to Gate 4 to the existing maintenance area in the south-east corner of the site.

The reduction in the on-site car parking provision will result in the following car parking provisions on the site.

- During school hours – 123 spaces.
- After school hours – 165 spaces.

A copy of the amended masterplan is attached at Appendix A.

A summary of the on-site car parking provision is provided in Table 1 below.

Table 1: Car Parking Provision Summary

Conditions	During School Hours	After School Hours
Existing	126 spaces	168 spaces
Endorsed Masterplan	112 spaces	158 spaces
Amended Masterplan	123 spaces	165 spaces

Accordingly, the amended masterplan provides an increased provision of 11 spaces during school hours and seven spaces after school hours when compared to the existing masterplan.

5. Statutory Car Parking Assessment

Clause 52.06 of the Planning Scheme sets out the statutory requirements for car parking. The purposes of Clause 52.06 are:

- *To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework.*
- *To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.*
- *To support sustainable transport alternatives to the motor car.*
- *To promote the efficient use of car parking spaces through the consolidation of car parking facilities.*
- *To ensure that car parking does not adversely affect the amenity of the locality.*
- *To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.*

Clause 52.06-5 states:

> *Where an existing use is increased by the measure specified in Column C of Table 1 for that use, the car parking requirement only applies to the increase, provided the existing number of car parking spaces currently being provided in connection with the existing use is not reduced.*

The relevant measure for the use on the site (Primary School and Secondary School) specified in Column C of Table 1 to Clause 52.06 is:

> *To each employee that is part of the maximum number of employees on the site at any time.*

The proposal does not include any increase in the maximum number of employees on the site at any time and accordingly, there is no requirement to provide additional on-site car parking. The proposal results in on-site car parking provisions that are in excess of the existing endorsed provisions (as outlined in the existing masterplan) both during and after school hours.

Accordingly, the proposed development plan amendment does not generate a requirement for a permit under Clause 52.06 of the Planning Scheme.

6. Construction Management

It is anticipated that 16 staff car parking spaces will be unavailable and used as a works area during the construction phase of the project. These spaces will be off set with the provision of 10 relocated car parking spaces to the bus parking area as identified in Figure 21 below.

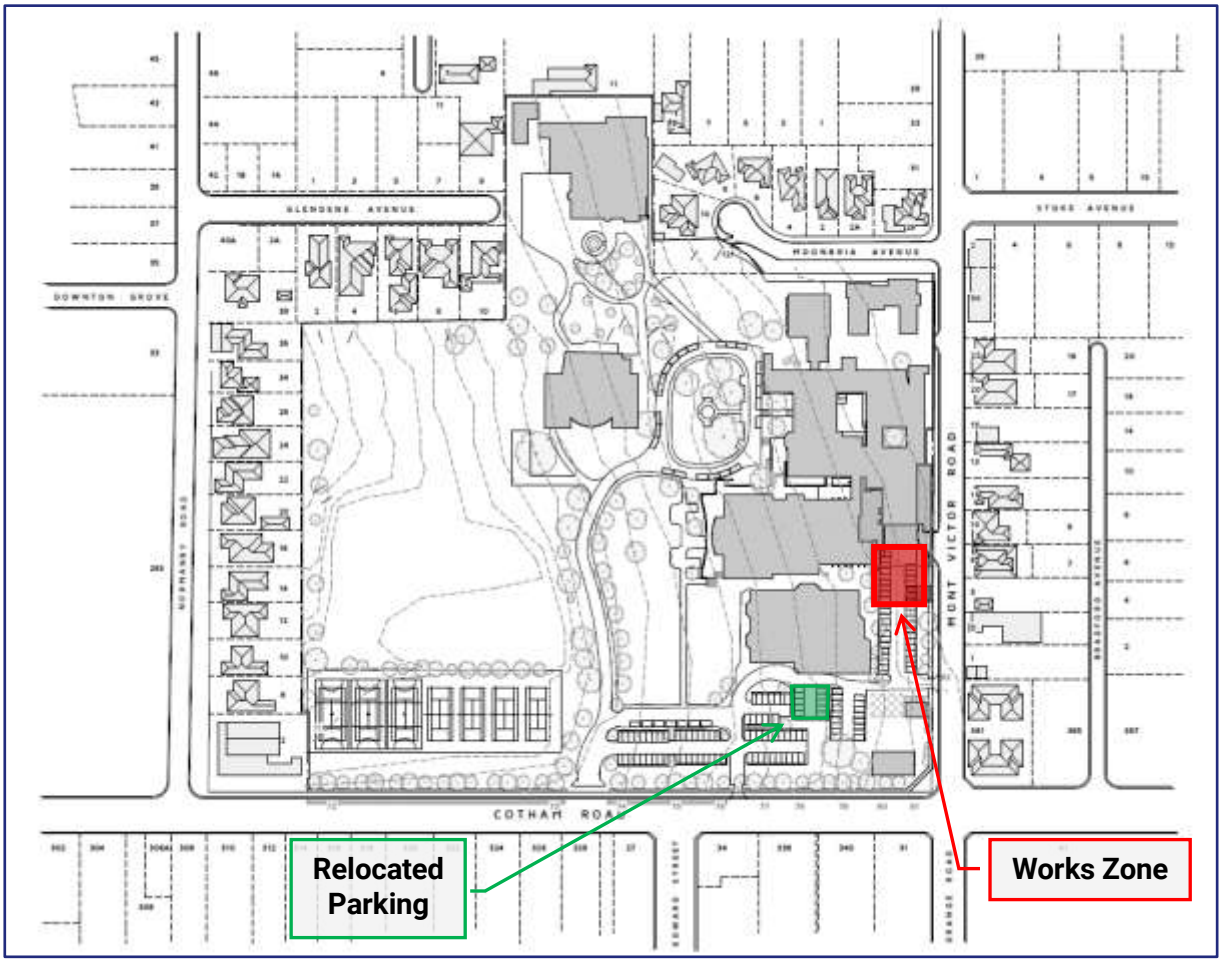


Figure 21: Construction Car Parking Management

We note that the four bus parking spaces in this area were considered a part of the 'after school hours' car parking provision (in accordance with the endorsed masterplan) and accordingly, the provision of the 10 relocated car parking spaces represents an effective increase of six spaces in this area after school hours.

The proposed relocated car parking spaces are to be provided with dimensions of 2.9m x 4.9m and accessed from an aisle width of 5.7m, in accordance with the requirements of Clause 52.06-9 of the Planning Scheme. A 1m aisle extension will be provided at the end of the aisle. Swept path diagrams have been prepared, copy attached at Appendix B, demonstrating appropriate access to one of the end spaces. On this basis, we are satisfied that the proposed relocated car parking is functional.

A summary of the car parking provisions associated with the construction phase of the project is provided in Table 2 below.

Table 2: Car Parking Summary - Construction Phase

Conditions	During School Hours	After School Hours
Existing	126 spaces	168 spaces
Change Due to Construction Activities	-16 spaces for works zone +10 relocated spaces	-16 spaces for works zone +6 relocated spaces
During Construction	120 spaces	158 spaces

The provision of 120 spaces during school hours and 158 spaces after school hours is in excess of or consistent with the car provisions in the endorsed masterplan. Accordingly, we are satisfied that the car parking provisions during the construction phase are suitable.

It is anticipated that construction employee vehicles will be parked along the Cotham Road frontage of the school, rather than entering the site and mixing with other school traffic and school children. It is typical for construction workers to start work at 7am and be finished by 4pm, therefore not being affected by the 4:30pm initiation of 'Clearway' restriction on the northern side of Cotham Road. These arrangements for construction worker parking are consistent with the endorsed masterplan.

The works zone will be accessible for rigid delivery trucks (up to the size of a 10m truck) via Mont Victor Road.

7. Internal Layout Considerations

The closure of Gate 4 will result in the aisle within the car parking area adjacent to Mont Victor Road becoming a dead end. This car parking area will be utilised by staff only. Accordingly, the car parking spaces accessed from this aisle will be low turnover and all users will be familiar with the changed internal layout options for the site.

Accordingly, we do not anticipate the changed internal accessway arrangements having any noticeable impact on the operation of the internal road network.

8. Traffic Considerations

The proposal does not include any increase in the number of students or staff on-site and accordingly, we would not expect any changes in the level of traffic generated by the site.

The proposed closure of Gate 4, will however result in the redistribution of traffic exiting the site via that gate, to other gates – likely Gate 3 given its proximity.

A summary of the vehicle movements observed exiting the site via Gate 4 throughout the day is provided in Figure 22 below.

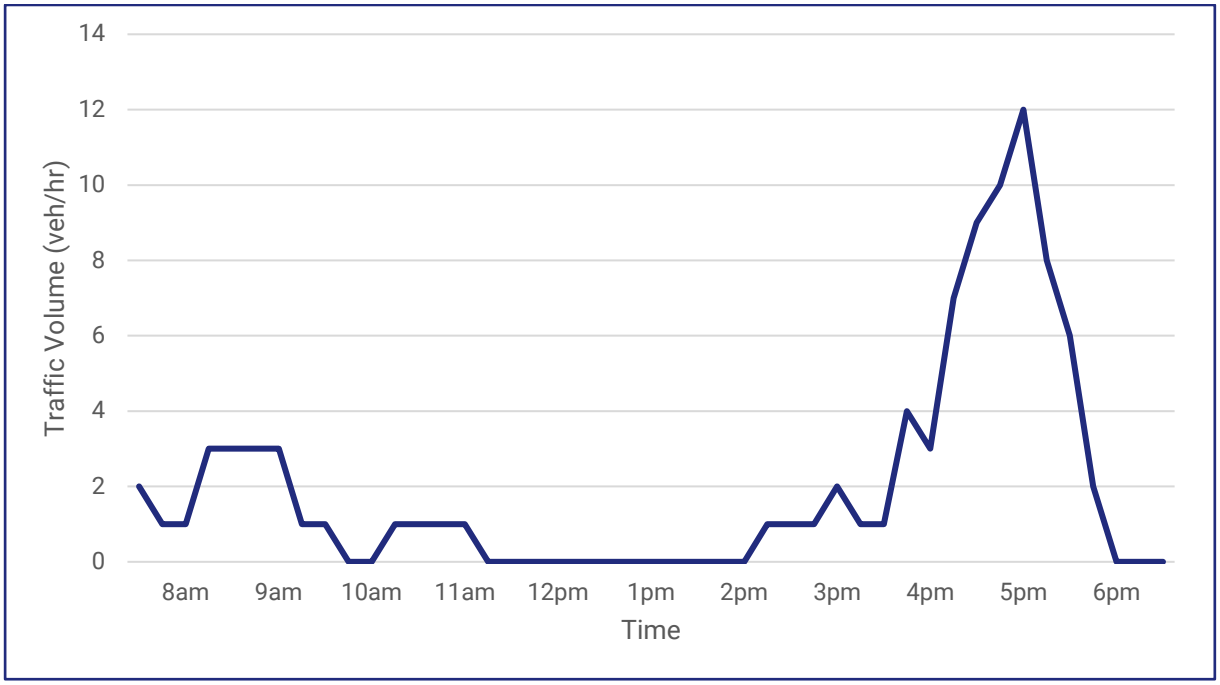


Figure 22: Gate 4 Traffic Volume Summary

Notably, a total of 24 vehicles were observed exiting from Gate 4 between 7am and 6pm, with the majority of these vehicle movements occurring between 3pm and 5:30pm. Outside of these times, no more than a three movements per hour used Gate 4.

The existing traffic volumes using Gate 4 are minor and it is not anticipated that the redistribution of these traffic movements to other gates will cause any noticeable change to the overall operation of the site or to the surrounding road network.

9. Statutory Bicycle Parking Assessment

Clause 52.34 of the Planning Scheme sets out the statutory bicycle parking requirements new developments. The purpose of Clause 52.34 is:

- *To encourage cycling as a mode of transport.*
- *To provide secure, accessible and convenient bicycle parking spaces and associated shower and change facilities.*

Clause 52.34-1 states:

> *Where the floor area occupied by an existing use is increase, the requirement for bicycle facilities only applies to the increased floor area of the use.*

The relevant measures for a bicycle parking requirements for schools are number of employees and number of pupils (rather than floor area referenced above).

The proposal does not include any increase in the maximum number of employees or pupils on the site at any time and accordingly, there is no requirement to provide additional bicycle parking as a result of the proposed masterplan amendment.

10. Waste Collection Considerations

Clause 65 of the Planning Scheme states:-

> *Before deciding on an application or approval of a plan, the responsible authority must consider, as appropriate:*
>
> - *The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.*

The site's existing bin storage and waste collection area will be removed as a part of the amended masterplan proposal. The bin area will be relocated to within the existing maintenance area in the south-east corner of the site.

Waste collection will continue to be undertaken by the same operators with same vehicles (up to size of 10m truck) accessing the site. Swept path diagrams have been prepared, copy attached at Appendix B, demonstrating access to the relocated bin area with a waste collection vehicle of this size.

Accordingly, we are satisfied that the amended masterplan has appropriately addressed changed waste collection arrangements.

A Waste Management Plan has been prepared (ref: G31624R-02B (WMP)) by Traffix Group which addresses the changed waste management arrangements associated with the amended masterplan.

11. Conclusions

Having undertaken a traffic engineering assessment of the proposal amended masterplan for Genazzano College at 301 Cotham Road, Kew, we are of the opinion that:

a) the proposed amended masterplan does not generate a statutory requirement to provide additional on-site car parking spaces,

b) the number of spaces provided on-site as a result of the proposed amended masterplan exceeds the number of spaces outlined in the endorsed masterplan for the site by 11 spaces during school hours and seven spaces after school hours,

c) the number of car parking spaces provided on-site during the construction phase is consistent with or exceeds the number of spaces outlined in the endorsed masterplan,

d) the proposed removal of gate 4 will not result in any adverse impacts on the internal accessway network within the school,

e) the proposed removal of gate 4 will not result in any adverse traffic impacts on the surrounding external road network,

f) the proposed amended masterplan does not generate a statutory requirement to provide additional on-site bicycle parking spaces,

g) the impacts on the sites existing bin storage and waste collection arrangements have been appropriately considered and addressed, and

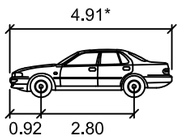
h) there are no traffic engineering reasons why the amended masterplan should not be approved.

Appendix B

Swept Path Diagrams

VEHICLE PROFILE

VEHICLE USED IN SIMULATION



85th percentile
(AS/NZS 2890.1:2004)

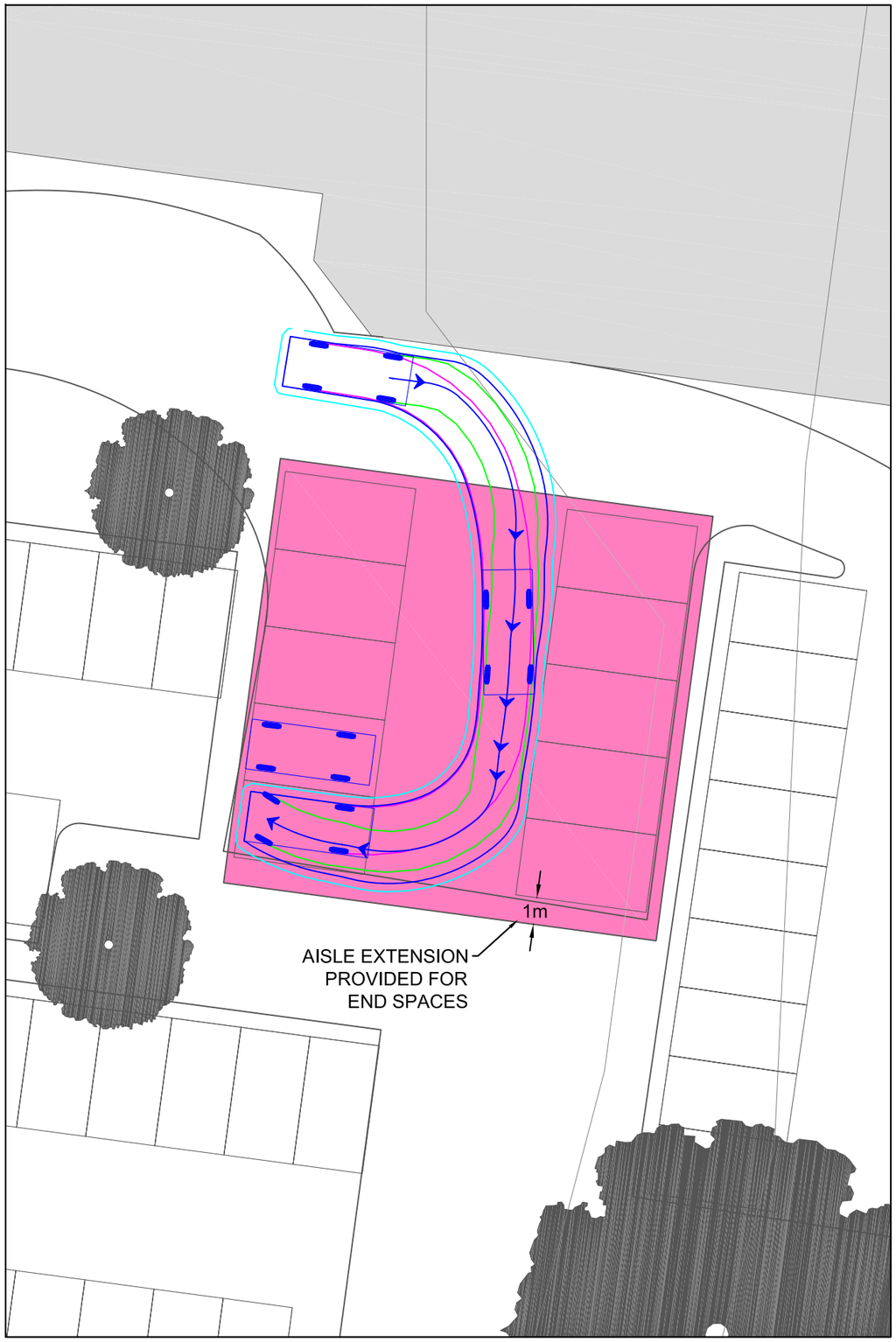
Width	: 1.87m
Track	: 1.77m
Kerb to Kerb Radius	: 11.5m

* actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

END CAR SPACE - INGRESS



END CAR SPACE - EGRESS

REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	30/11/2022		M. KOORN	H. TURNBULL
B	06/12/2022		M. KOORN	H. TURNBULL

301 COTHAM ROAD, KEW - GENAZZANO COLLEGE

RELOCATED CAR PARKING DURING CONSTRUCTION - SWEPT PATH ASSESSMENT

GENERAL NOTES:

1. Prepared on base plan '0114.dwg' provided by Baumgart Clark Architects, received 6/12/2022.

FILE NAME: G31624-01
SHEET NO.: 01/02

N

SCALE: 1:200 (A3)
0 2 4

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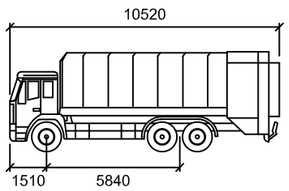
Level 28, 459 Collins St, MELBOURNE VIC 3000
T: (03) 9822 2888
www.traffixgroup.com.au

VEHICLE PROFILE

VEHICLE USED IN SIMULATION



10.52 front lift waste truck

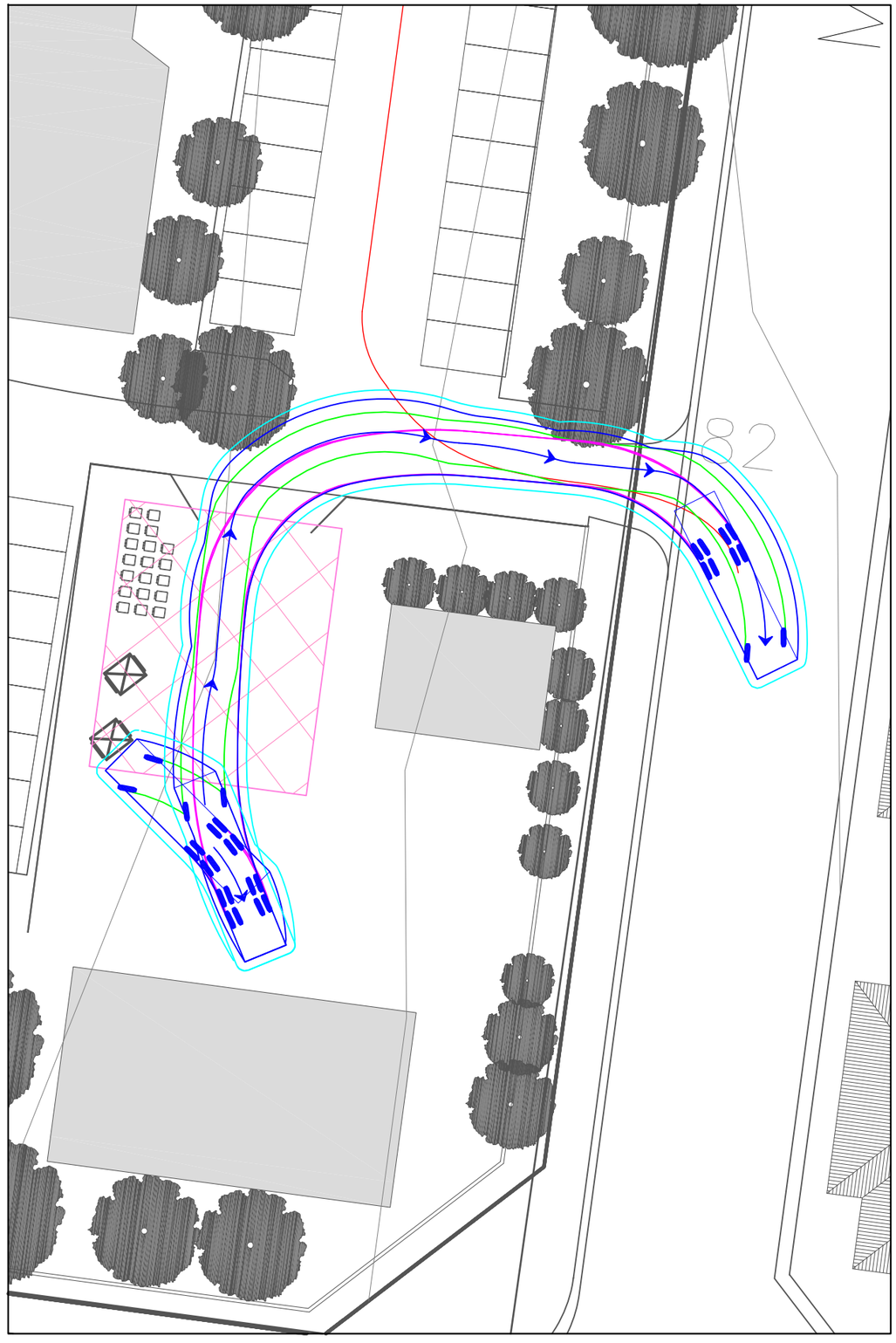
	mm
Width	: 2500
Track	: 2500
Lock to Lock Time	: 4.0
Steering Angle	: 30.9

LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

WASTE COLLECTION VEHICLE - INGRESS

WASTE COLLECTION VEHICLE - EGRESS



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	30/11/2022		M. KOORN	H. TURNBULL
B	06/12/2022		M. KOORN	H. TURNBULL

301 COTHAM ROAD, KEW - GENAZZANO COLLEGE

RELOCATED BIN STORE AREA -
SWEPT PATH ASSESSMENT

GENERAL NOTES:

1. Prepared on base plan '0114.dwg' provided by Baumgart Clark Architects, received 6/12/2022.

FILE NAME: G31624-01
SHEET NO.: 02/02

N

SCALE: 1:300 (A3)
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