GTAconsultants

DRAFT

REF: V192780

DATE: 22 December 2020

Fusion Project Management
Level 1, 109 Drummond Street
CARLTON VIC 3053

Attention: Mr Tegan Stott (Senior Project Manager)

Dear Tegan,

RE: 102-108 JEFFCOTT STREET, WEST MELBOURNE – AMENDED PLANS
TRANSPORT ENGINEERING REVIEW

Background

A Planning Permit (No.1800480) has been issued for a mixed-use development at 102-108 Jeffcott Street and 355-383 Spencer Street, West Melbourne. The approved development included the partial demolition of the existing building at 102-108 Jeffcott Street and the construction of a 22-storey building on the site above three basement levels, which was proposed be used as a hotel in conjunction with the adjacent building to the east. It was also proposed to have ground floor retail and café tenancies.

Approval is now being sought for an amended development proposal on the site at 102-108 Jeffcott Street only. The amended proposal is intended to be a stand-alone development which will consist of a 19-storey apartment building above three basement levels. There will also be a ground floor retail premises and an office tenancy on the mezzanine level. A comparison of the approved and amended proposals on the site at 102-108 Jeffcott Street is provided in Table 1.

Table 1: Development Summary

Land Use	Approved Proposal	Amended Proposal	Difference
Dwelling	-	65 x one-bedroom 48 x two-bedroom =113 total	+113 apartments
Food & Drink Premises	106sqm	47.5sqm	-58.5sqm
Office	-	119.5sqm	+119.5sqm
Residential Hotel	190 rooms	-	-190 rooms
Retail	191sqm	-	-191sqm
Parking	56 spaces	65 spaces	+9 spaces

Access to the approved development was proposed via McDougall Lane at the northwest corner of the site, with a single car lift providing access to all basement levels.

Access to the amended proposal is proposed via two access points. There will be one access point to Jeffcott Street at the southwest corner of the site in the same location as the existing access point. It is also proposed to have an access point to McDougall Lane near the northwest corner of the site. Access to the basement levels will be via two car lifts. Motorists wishing to access the car parking spaces in the northern section of each basement level will enter the site via Jeffcott Street and use the western car lift to travel down into the basement. When exiting, motorists will use the eastern car lift to travel up to the ground floor and then exit via Jeffcott Street.

VIC | NSW | QLD | SA | WA
Level 5, 17 Queen Street
MELBOURNE VIC 3000
PO Box 24055
t// +613 9851 9600
ABN 34 137 610 381
www.gta.com.au

Motorists wishing to access the car parking spaces in the southern section of each basement level will enter the site via McDougall Lane and use the eastern car lift to travel down into the basement. When exiting, motorists will use the western car lift to travel up to the ground floor and then exit via McDougall Lane.

Waste collection and loading for the approved development was proposed to occur on the adjacent site at 355 Spencer Street. Waste collection for the amended development will occur from within the on-site loading area on the ground floor, using small waste collection vehicles. Loading can occur from the loading zone on Jeffcott Street immediately adjacent to the site.

The approved development had on-site bicycle parking within the basement levels of the building at 102-108 Jeffcott Street and on the adjacent site at 355 Spencer Street. The amended proposal includes a total of 91 bicycle parking spaces within the basement levels of 102-108 Jeffcott Street.

GTA Consultants provided transport engineering services for the approved development. We have now been requested to review the transport engineering impact of the proposed amended plans. Further details regarding the subject site and the approved development proposal are provided in the previous Transport Impact Assessment prepared by GTA Consultants dated 19 February 2019.

Car Parking Provision

Statutory Requirements

Statutory requirements for the provision of car parking are set out in Clause 52.06 of the Melbourne Planning Scheme, with parking rates specified in Table 1 to Clause 52.06-5. As the site is within the Principal Public Transport Network Area, the rates in Column B of the table apply to this site. Based on this, an assessment of the statutory car parking requirements for the amended development proposal is provided in Table 2.

Table 2: Statutory Car Parking Requirements

Use	Size	Rate	Requirement
Dwelling	65 x one-bedroom 48 x two-bedroom =113 total	1 per 1-2 bedroom dwelling 2 per 3+ bedroom dwelling	113 spaces
Food & Drink Premises (Café)	47.5sqm	3.5 spaces / 100sqm	1 space
Office	119.5sqm	3 spaces / 100sqm	4 spaces
Total			**118 spaces**

The above assessment shows that the amended development has a statutory car parking requirement for 118 spaces. It is proposed to provide 65 spaces on-site. Therefore, the amended proposal will continue to require a reduction from the statutory car parking requirements.

Proposed Parking Overlay Schedule 14

Amendment C309 to the Melbourne Planning Scheme is currently with the Minister for Planning for consideration of adoption. This seeks to implement the West Melbourne Structure Plan through changes to various controls in the Planning Scheme over land in West Melbourne, including the subject site. As part of Amendment C309 it is proposed to introduce a Parking Overlay on the site, which would make the site subject to a new Schedule 14 to the Car Parking Overlay. This draft schedule seeks to introduce maximum car parking rates for land in West Melbourne. An assessment of the statutory car parking requirements which would apply for the amended development proposal if Amendment C309 is adopted as recommended by the relevant Planning Panel is provided in Table 3.

Table 3: Proposed Schedule 14 to the Parking Overlay Car Parking Requirements

Use	Size	Rate	Maximum
Dwelling	65 x one-bedroom 48 x two-bedroom =113 total	0.3 per 1 bedroom dwelling 0.45 per 2 bedroom dwelling 0.6 per 3 bedroom dwelling	41 spaces
Food & Drink Premises (Café)	47.5sqm	0.5 spaces / 100sqm	0 spaces
Office	119.5sqm	0.5 spaces / 100sqm	1 space
Total			**42 spaces**

Therefore, if Amendment C309 is adopted as currently proposed, the proposed development would have a statutory maximum allowable provision of 42 on-site car parking spaces, with no statutory minimum.

Adequacy of Car Parking Provision

It is proposed to provide 65 on-site car parking spaces for the amended development proposal. All the spaces will be allocated to residents of the apartments. The proposed provision is considered appropriate due to the following:

- The site already has a car parking deficit.
- The approved development on the overall site at 102-108 Jeffcott Street and 355-383 Spencer Street proposed a significant reduction in car parking from the statutory requirements.
- The proposed Amendment C309 would require significantly reduced on-site car parking when compared with the current statutory requirements.
- The site has excellent access to public and sustainable transport modes.
- The development is proposed to contain bicycle parking in excess of statutory requirements.
- There are some opportunities for visitors and customers to park on-street in the vicinity of the site.
- Residents will be aware of car parking limitations, and minimal availability of long-term public car parking in the vicinity of the site, and hence are unlikely to own a car unless they have an allocated on-site car parking space.
- Similarly, employees will be aware of car parking limitations, and minimal availability of long-term public car parking in the vicinity of the site, and tailor their mode of travel to and from work accordingly.

Bicycle Parking Provision

Statutory Requirements

Statutory requirements for the provision of bicycle parking are set out in Table 1 of Clause 52.34 of the Melbourne Planning Scheme. Based on this, the statutory requirements for the provision of bicycle parking for the amended proposal are set out in Table 4.

Table 4: Statutory Bicycle Parking Requirements

Use	Size	Statutory Rate		Statutory Requirement	
		Employee / Resident	Visitor/Shopper	Employee / Resident	Visitor / Shopper
Dwelling	113 No.	1 per 5 dwellings	1 per 10 dwellings	23 spaces	11 spaces
Food & Drink Premises	47.5sqm	1 per 300sqm	1 per 500sqm	0 spaces	0 spaces

Use	Size	Statutory Rate		Statutory Requirement	
		Employee / Resident	Visitor/Shopper	Employee / Resident	Visitor / Shopper
Office	119.5sqm	1 per 300sqm LFA if LFA > 1,000sqm	1 per 1,000sqm LFA if LFA > 1,000sqm	0 spaces	0 spaces
Total				**23 spaces**	**11 spaces**

The above assessment shows that the amended proposal has a statutory requirement of 34 bicycle parking spaces, comprising 23 resident spaces and 11 visitor spaces.

As there is no requirement for employee bicycle parking spaces then there is no requirement for employee showers and change rooms.

Bicycle Parking Adequacy

The amended proposal includes the provision of 91 bicycle parking spaces within the three basement levels. The proposed on-site bicycle parking provision for the amended proposal significantly exceeds the statutory requirements.

Bicycle Parking Layout

Most of the bicycle parking will be provided in wall-mounted racks. These will be spaced at 0.5m centres, with 1.2m depth provided for the bicycles, adjacent to a minimum 1.5m wide aisle, in accordance with AS2890.3. There will also be some spaces in horizontal hoops. These will be 1.0m centres with 1.8m depth provided for the bicycles, also in accordance with AS2890.3.

Car Park & Access Design

Car Park Layout

The proposed amended car park layout has been designed in accordance with the requirements of Clause 52.06-9 of the Melbourne Planning Scheme and AS2890. Specifically:

- The car parking spaces will generally be 2.6m wide by 4.9m long, adjacent to a 6.4m wide aisle, in accordance with Clause 52.06-9 of the Melbourne Planning Scheme.
- Some car parking spaces will be 3.0m wide by 4.9m long, adjacent to a 5.2 m wide aisle, also in accordance with Clause 52.06-9 of the Melbourne Planning Scheme.
- The disabled car parking space will be 2.4m wide by 5.4m long, adjacent to a 2.4m wide by 5.4m long shared space, in accordance with AS/NZS 2890.6.
- Columns adjacent to spaces will be located in accordance with Diagram 1 of Clause 52.06-9 of the Melbourne Planning Scheme.
- Swept path checks using AutoTURN software confirm that vehicles will be able to access key car parking spaces adequately (see Appendix A).

Car Lifts

The car lifts are proposed to be a GMV Type VL35 or similar (see attached brochure). They will have a platform width of 2.7m and length of 5.6m. This will be adequate to accommodate a B99 vehicle.

Swept path checks using AutoTURN software confirm that vehicles will be able to access the car lifts adequately (see Appendix A).

Site Access

Swept path checks using AutoTURN software confirm that vehicles will be able to enter and exit the site adequately (see Appendix A).

Loading & Waste Management

Given the limited size of the site and the need to retain the heritage façade, waste collection is proposed to occur on-site from within the ground floor using 6.4m long small waste collection vehicles. Access will be via Jeffcott Street.

The on-site loading area will also be able to be used by vans. Other loading can occur from within the loading zone on Jeffcott Street immediately adjacent to the site.

Traffic Impact

Given the location of the site near the Melbourne CBD, the on-site car park could be expected to generate no more than 3 daily vehicle movements per space, including 0.3 vehicle movements per space in a peak hour. This would equate to a total of up 195 daily vehicle movements, including up to 20 movements in a peak hour.

The approved development was expected to generate up to 28 movements in a peak hour. Therefore, the amended development proposal will generate less traffic than would have been generated by the approved development. Also, the existing use on the site would generate some traffic.

Accordingly, the impact of the amended development on the wider road network is expected to be minimal.

Car Lift Queuing

The proposed car lifts will each be capable of accommodating at least 45 vehicle movements per hour.

The calculation of the 98th percentile queue was undertaken using queuing formulae from Austroads Guide to Traffic Management Part 2: Traffic Theory.

Based on a derivation of Equation No.4.5 from Table 4.1 of the Austroads Guide to Traffic Management Part 2: Traffic Theory, the formula for calculating a 98th percentile queue is:

$queue = \log_n(degree\ of\ saturation)/\log_n(percentile)-1$

The degree of saturation is the number of vehicles using the system divided by the capacity. Assuming that each lift will generate up to 10 vehicle movements per hour during peak periods, and each lift has a capacity for up to 45 vehicle movements per hour, the degree of saturation is 10/45 = 0.22.

The 98th percentile equates to an event which occurs 2% of the time. Therefore, the percentile = 0.02.

Accordingly, the 98th percentile queue will be:

$queue = \log_n(0.22)/\log_n(0.02)-1 = 1.6\ vehicles$

Of this queue, one vehicle will be in the lift, and therefore the queue external to the lift will be 0.6 vehicles. Of these, some vehicles will be waiting at ground level to enter the car park whilst others will be waiting on the basement levels to exit. Therefore, the queuing for the car lifts will be minimal and will be fully contained within the site.

Summary

Based on the analysis and discussions presented within this letter, the following conclusions are made:

- The amended development has a statutory car parking requirement for 118 spaces.
- It is proposed to provide 65 on-site car parking spaces for the amended development proposal. All the spaces will be allocated to residents of the apartments. The proposed provision is considered appropriate due to the following:
  - The site already has a car parking deficit.
  - The approved development on the overall site at 102-108 Jeffcott Street and 355-383 Spencer Street proposed a significant reduction in car parking from the statutory requirements.
  - The proposed Amendment C309 would require significantly reduced on-site car parking when compared with the current statutory requirements.
  - The site has excellent access to public and sustainable transport modes.
  - The development is proposed to contain bicycle parking in excess of statutory requirements.
  - There are some opportunities for visitors and customers to park on-street in the vicinity of the site.
  - Residents will be aware of car parking limitations, and minimal availability of long-term public car parking in the vicinity of the site, and hence are unlikely to own a car unless they have an allocated on-site car parking space.
  - Similarly, employees will be aware of car parking limitations, and minimal availability of long-term public car parking in the vicinity of the site, and tailor their mode of travel to and from work accordingly.
- The proposed on-site bicycle parking provision for the amended proposal exceeds the statutory requirements and the layout is in accordance with AS2890.3.
- The proposed amended car park layout has been designed in accordance with the requirements of Clause 52.06-9 of the Melbourne Planning Scheme and AS2890.
- Waste collection is proposed to occur on-site from within the ground floor using 6.4m long small waste collection vehicles.
- Loading can occur from within the loading zone on Jeffcott Street immediately adjacent to the site.
- The amended proposal is expected to generate less traffic than would have been generated by the approved development and the impact of the amended development on the wider road network is expected to be minimal.
- The queuing for the car lifts will be minimal and will be fully contained within the site.

Naturally, should you have any questions or require any further information, please do not hesitate to contact me on (03) 9851 9600.

Yours sincerely

GTA CONSULTANTS

David Graham
Director