

**290 PARK STREET,
FITZROY NORTH**

ENVIRONMENTAL WIND ASSESSMENT

**by
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Report 25130A-DE-EWA03

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1. INTRODUCTION

The proposed development at 290 Park Street, Fitzroy North, will be a 6-level residential building occupying a site on the south side of Park Street, at the intersection of Park Street and Nicholson Street in Fitzroy North. The site location is shown in Figure 1.

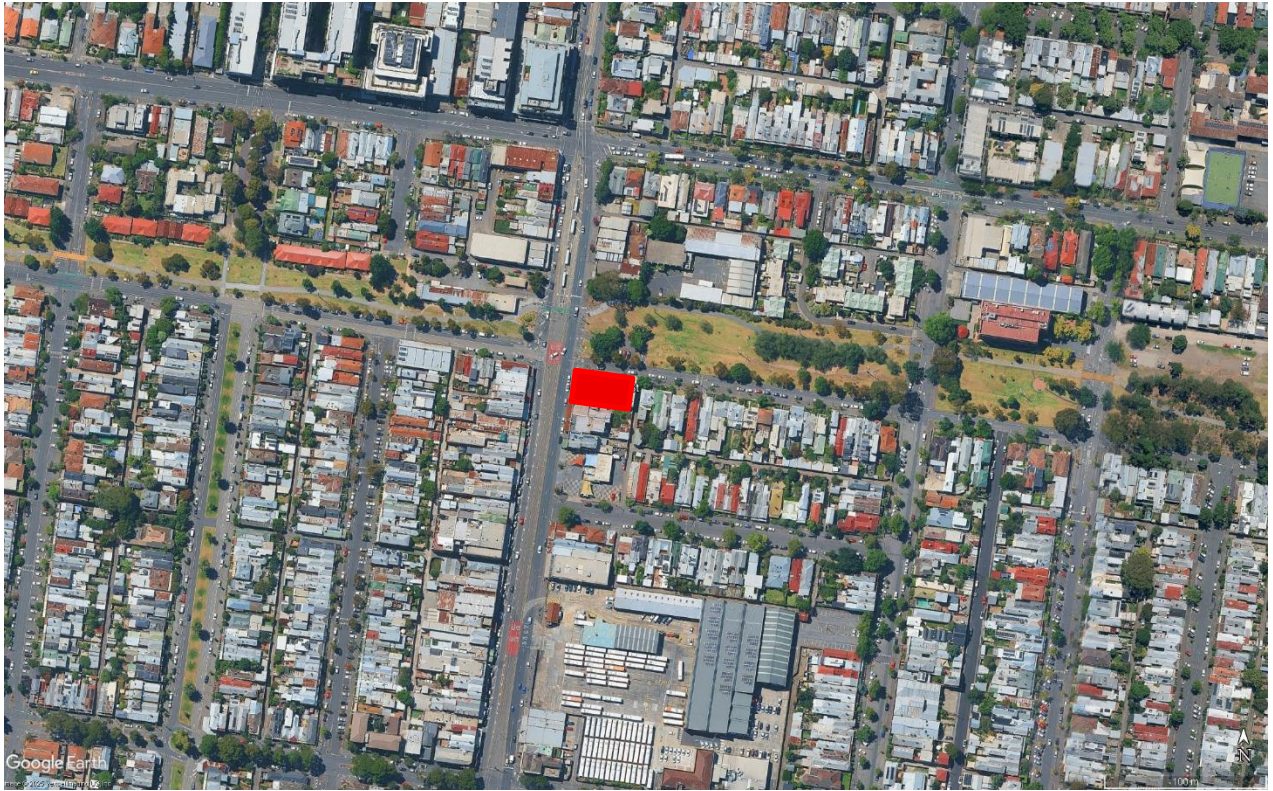


Figure 1: Location of the proposed 290 Park Street Development, Fitzroy North (highlighted by red rectangle)

This assessment was commissioned by Antipodean Land Developments Pty Ltd and is based on a review of development plans prepared by Architecture architecture dated 31st March 2026 and only considers current existing surrounds and under construction buildings (i.e. no proposed future buildings). This desktop environmental wind assessment is based on MEL Consultants knowledge of wind flow around buildings and structures from undertaking numerous wind tunnel model studies, no wind tunnel study has been undertaken for this study.

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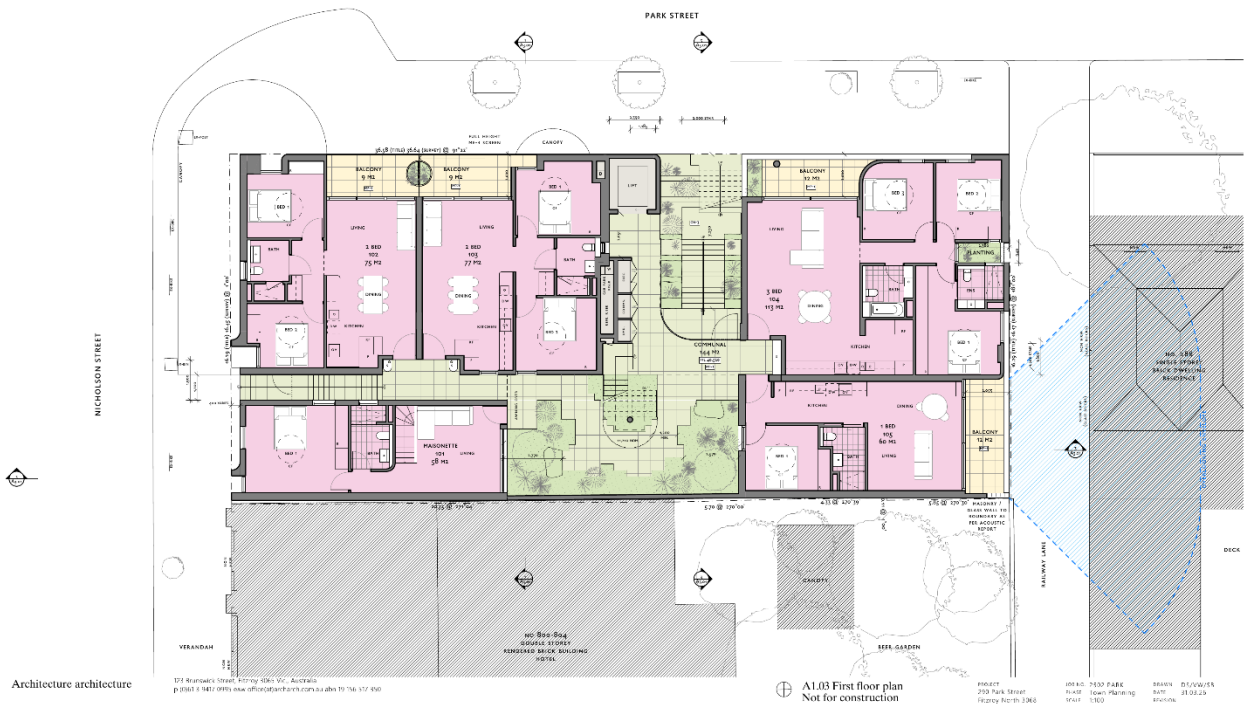


Figure 3: Plan view of Level 1

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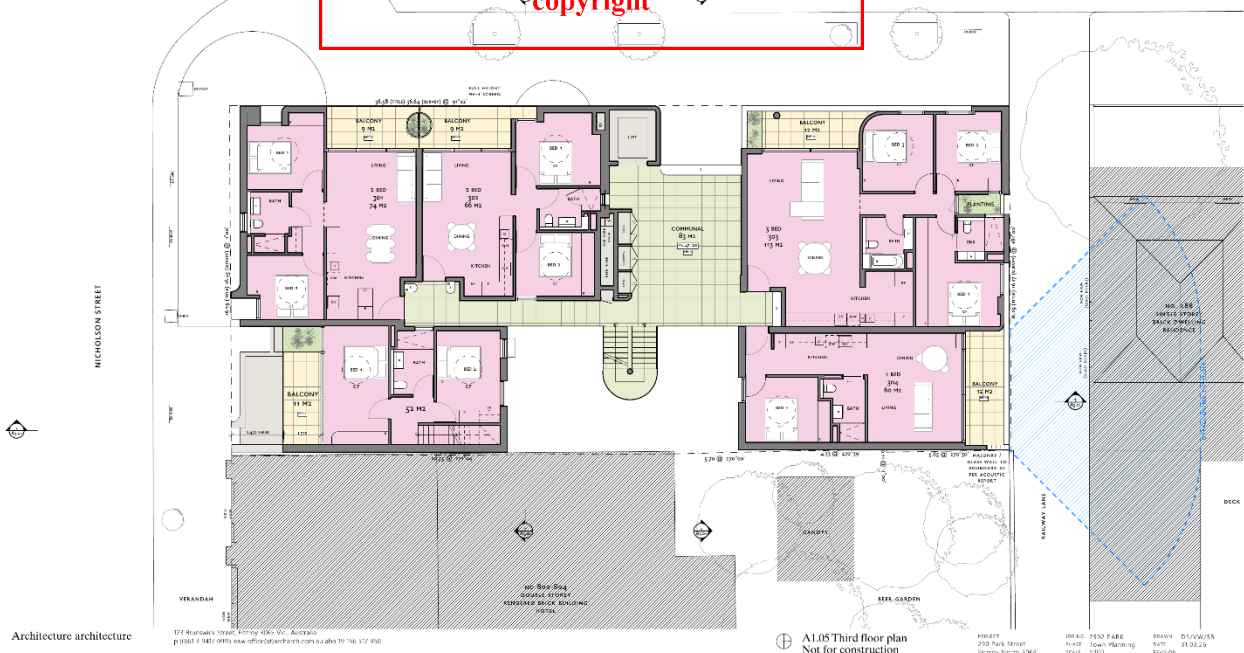
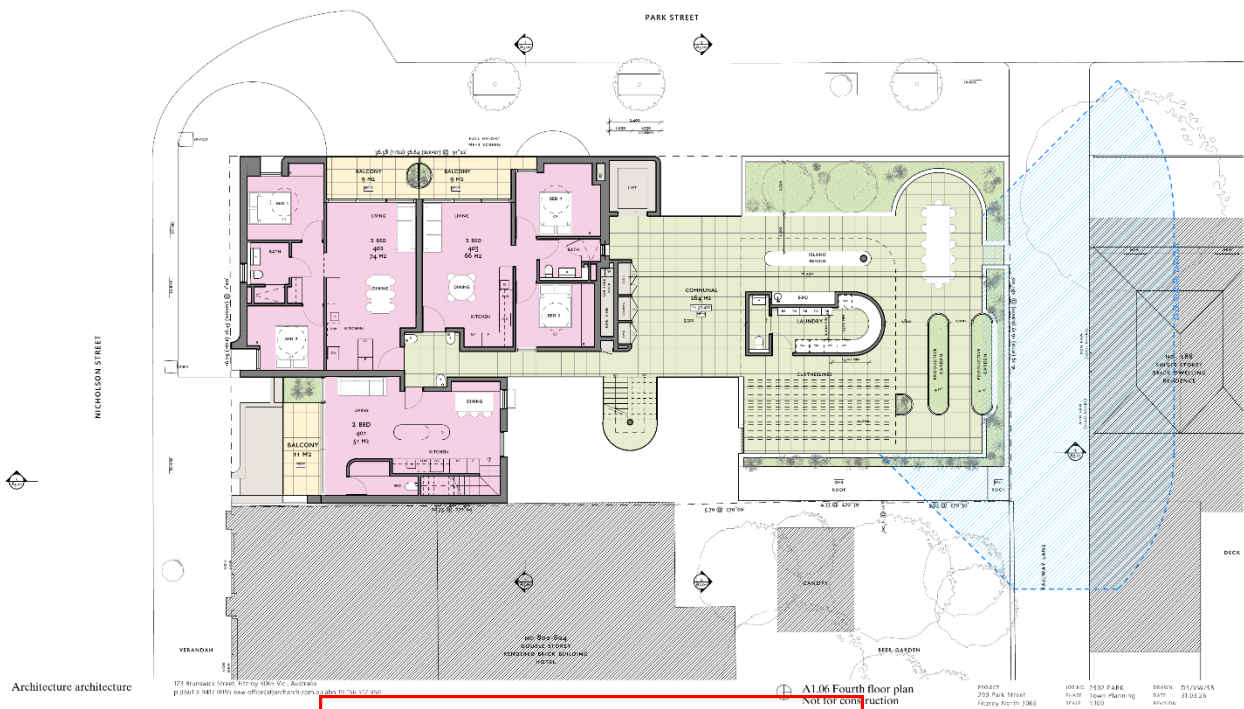


Figure 4: Plan view of Level 3.



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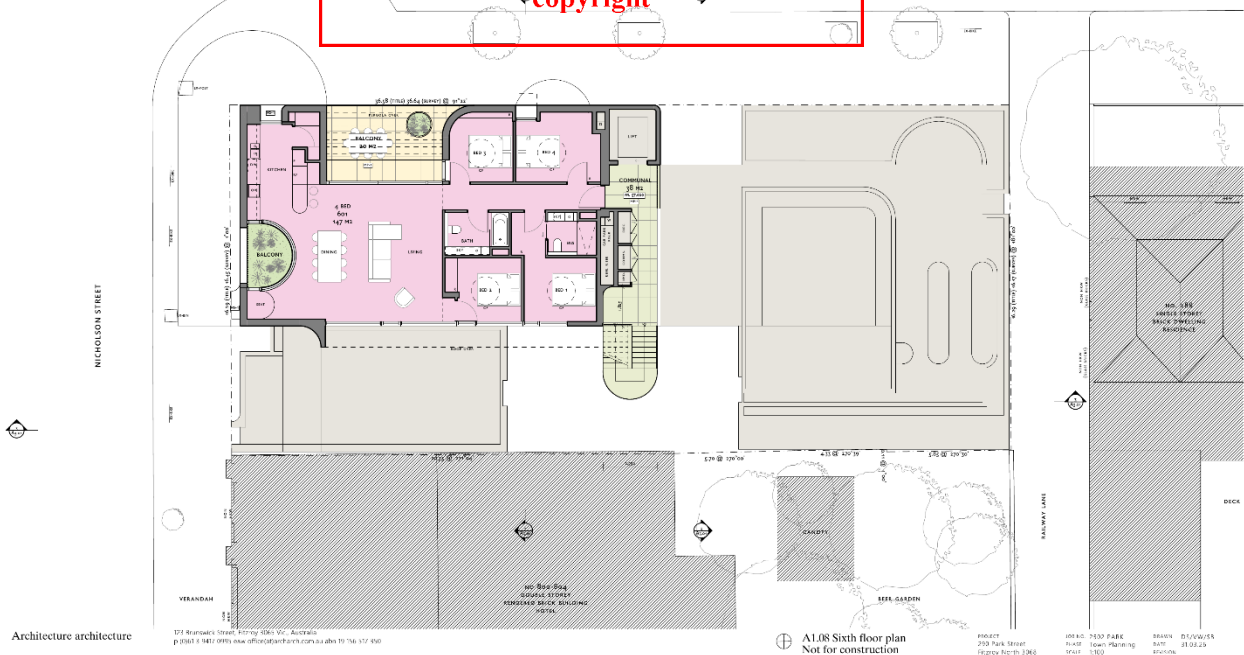


Figure 6: Plan view of Level 6.

3. WIND ENVIRONMENT AND EXPOSURE

The strongest and most frequent winds in the Melbourne Metropolitan Region come from the north and west sectors with secondary strong winds coming from the south sector; east sector winds are relatively light and infrequent.

The site is located on the corner of Park Street and Nicholson Street with Railway Lane immediately east. Single and double storey commercial and residential buildings lie immediately to the south and east of the site. A small linear park lies opposite the site.

The site is surrounded by typical single and double storey commercial and residential buildings, with some taller 4 level developments along Brunswick Road. In the far field, to the south-west are the significant developments of the University of Melbourne the Melbourne CBD, Docklands and Southbank which will introduce some disruption to the approaching wind flow from that direction.

Based on this, the development will have direct exposure to all wind directions.

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4. ASSESSMENT CRITERIA

The Planning Scheme defines wind safety and comfort criteria in Clause 58.04-4 and these criteria are defined as follows:

Unsafe wind conditions mean the hourly maximum 3 second gust which exceeds 20 metres/second from any wind direction considering at least 16 wind directions with the corresponding probability of exceedance percentage.

Comfortable wind conditions A 'mean wind speed' from all wind directions combined with a probability of exceedance less than 20% of the time, equal to or less than:

- 3 metres/second for sitting areas
- 4 metres/second for standing areas
- 5 metres/second for walking areas

Mean wind speed means the maximum of:

- Hourly mean wind speed, or
- Gust equivalent mean wind speed (3 second gust wind speed divided by 1.85)

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Trees and landscaping should not be used to mitigate wind impacts. This does not apply to sitting areas, where trees and landscaping may be used to supplement fixed wind mitigation elements.

Wind mitigation elements, such as awnings and screens should be located within the site boundary, unless consistent with existing urban context or preferred future development of the area.

The above criteria are pass/fail criteria as they only assess the summation of probabilities of exceedance across all wind directions to determine whether a location passes or fails the threshold criterion i.e. the criteria assess the average wind conditions.

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5. RECOMMENDED WIND COMFORT CRITERIA

The following wind comfort criteria are recommended:

Streetscapes	Walking
Building Entrances	Standing
Outdoor Balconies/Terraces	Standing

The wind conditions on the balconies and terraces throughout the development have been recommended to satisfy the standing criterion. These spaces could be considered elective when external conditions would be perceived as acceptable for the desired activity. Users of these terraces will need to be educated on the wind effects and loose objects should not be left on an unattended balcony or terrace.

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6. WIND ASSESSMENT

6.1 Surrounding Streetscapes

Additional downwash would be induced to the lower levels by the north faces of the building which will accelerate around the north-west corner. The building setback from the east and the narrow western face are beneficial features and will limit the downwash effects from the north and west, respectively.

Some flow will be deflected off the north-west building corner towards the northern side of Park Street for south-west wind directions and towards the western side of Nicholson Street for north sector wind directions, although wind conditions would still be expected to meet the walking comfort criterion.

The setback of the development from the east will minimise downwash effects into the beer garden to the south as well as into Railway Lane to the east. Conditions in these areas would be expected to achieve the same comfort criterion as currently experienced.

As such the wind conditions in the streetscapes surrounding the development would be expected to be comparable but elevated relative to the existing wind conditions. These conditions would be expected to meet a minimum of the walking comfort criterion at all locations, with areas away from the building corners improving, meeting the standing criterion or better.

The pedestrian entry points off Park Street to the south are located central to the site, away from the building corners. As such the wind conditions at these entry points would be expected to achieve the standing criterion. Furthermore the commercial entry lies away from the site corner, is recessed and as such would also be expected to achieve the standing comfort criterion.

The wind conditions in the surrounding streetscapes would be within the safety criterion for all wind directions.

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6.2 Balconies and Terraces

The balcony locations are well placed away from building corners and as a result the conditions achieved would be expected to meet the standing criterion or better.

The roof communal spaces are shielded from west sector winds by the taller western half of the development and while will have some exposure to north sector winds will still be expected to achieve the standing comfort criterion. Their rooftop locations benefit from the trajectory of the wind flow up and over the building but note that there would be some element of gustiness on these terraces due to the swirling turbulent flows across the top of the building, particularly at the corners. The proposed landscaping along the north and south side of the Level 4 terrace would be expected to provide a beneficial mitigation effect.

The wind conditions on all the balconies and terraces would be expected to satisfy the safety criterion.

It would be recommended that users be educated on the wind impacts on elevated terraces/balconies and that any objects to be left permanently on the balcony would be tethered/fixing securely to the balcony and the fixing/tethers inspected regularly for damage/corrosion. Any loose items should not be left on the balcony when unattended.

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6.3 Breezeways and Open Stairwells

With ground floor openings on both the northern and western sides the breezeway will allow wind to flow through the breezeway and associated corridors. Conditions would be expected to achieve the standing comfort criterion.

The open connection up to the level 4 communal space and above will allow wind to flow up to each level via the stairwell since the upper levels, and notably the rooftop level 4 communal space, typically experience a negative relative pressure compared to the lower levels. Conditions within the stairwell and at each communal space level would be expected to achieve the standing comfort criterion.

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7. CONCLUSIONS

We have assessed the likely environmental wind conditions in the streetscapes surrounding the proposed development at 290 Park Street, Fitzroy North, detailed in development plans by Architecture architecture dated 31st March 2026.

It has been assessed that the wind conditions in the streetscapes surrounding the proposed development would have wind conditions that would satisfy the walking criterion or better. The wind conditions at the primary entrances off Park and Nicholson Streets would be expected to achieve the standing criterion. The wind conditions at the entrance to the commercial tenancy expected to achieve the standing comfort criterion.

Overall, the impacts of the development on the ground level wind conditions would not be expected to be significant, with the Nicholson Street and Park Street corner likely to experience a noticeable increase in wind conditions, but still within the required walking comfort level.

The wind conditions on the private balconies and terraces throughout the development would be expected to satisfy the standing criterion, and be expected to improve at locations away from building corners/façade edges.

Conditions within the breezeways and open stairwells and communal spaces on each level would be expected to achieve the standing comfort criterion.

The wind conditions would satisfy the pedestrian safety criterion.

No modifications to the design have been recommended.

By:



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 1st June 2026

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