

Gurner

168 Williams Road Prahran VIC 3181 21 December 2020 Ref: 30N-20-0134-GCO-6824160-0

Dear James,

One Wellington, St Kilda

Vipac Engineers & Scientists Ltd carried out wind tunnel testing to determine the likely pedestrian level wind conditions for the original proposed development at **One Wellington**, **St** Kilda. Drawings for the wind tunnel test model were provided to Vipac in May 2020, and wind tunnel testing conducted on the design in July 2020.

The design has been revised and the updated drawings were provided to Vipac in **December 2020** for a design review, with reference to the previous design and wind tunnel test results.

The building was tested using scale model wind tunnel testing of the proposed development and surroundings to determine a quantitative description of the wind environment adjacent to the building. By comparing the current amended scheme to the design that underwent wind tunnel testing, we can determine the effect of these changes on the pedestrian wind environment adjacent to the development. The main points to note from a wind environment perspective are:

- The ground floor and podium envelope have remained largely the same (Figure 1, Figure 2 & Figure 3).
- The Level 01 communal terrace at the northeast of the development has incorporated an outdoor kids play area, and a dog run (Figure 2). The measured wind speeds in this area were within the sitting comfort criterion with the proposed design, and so would have an acceptable wind environment for these uses.
- The communal podium rooftop terrace on Level 03 has incorporated a pool (Figure 3). Most locations within this area met the sitting comfort criterion with the proposed design, except at the southern edge of the terrace, which achieved the walking comfort criterion. As such, the revised design would have an acceptable wind environment for the proposed use of the space.
- The tower forms have remained largely the same (Figure 4, Figure 5, Figure 6 & Figure 7).
- Outdoor terraces on Levels 25, 26 & 27 have incorporated additional amenity, including spas and bar seating (Figure 7 & Figure 8). These areas met the standing to sitting comfort criteria in the wind tunnel test with the proposed 1.8 m balustrades incorporated. As such, the revised design would be expected to have an acceptable wind environment.
- The height of the building has remained the same (Figure 9).

The design has not changed in a way that would be expected to adversely affect the adjacent wind environment compared to the original design tested in the tunnel. Therefore, the conclusions and recommendations of Vipac's wind tunnel test report **30N-20-0134-TRP-6781657-0** are still valid for the current design. As such, the revised design is expected to have an acceptable wind environment and no further recommendations for wind control treatments have been made.

Yours sincerely,

Vipac Engineers & Scientists Ltd

Sklamanto

Sophie Lamande
Wind Group Leader

Ta Shayim

Dr. Zhuyun Xu Senior Wind Engineer



Attachments:



Figure 1: Ground floor plans for the development at One Wellington, St Kilda – comparison between revised design and design tested in the wind tunnel





Figure 2: Level 01 floor plans for the development at One Wellington, St Kilda – comparison between revised design and design tested in the wind tunnel





Figure 3: Podium rooftop (Level 03) plans for the development at One Wellington, St Kilda – comparison between revised design and original design tested in the wind tunnel





Figure 4: Level 06 plans for the development at One Wellington, St Kilda – comparison between revised design and original design tested in the wind tunnel





Figure 5: Level 11 plans for the development at One Wellington, St Kilda – comparison between revised design and original design tested in the wind tunnel





Figure 6: Level 12 plans for the development at One Wellington, St Kilda – comparison between revised design and original design tested in the wind tunnel





Figure 7: Level 26 plans for the development at One Wellington, St Kilda – comparison between revised design and original design tested in the wind tunnel





Figure 8: Level 27 plans for the development at One Wellington, St Kilda – comparison between revised design and original design tested in the wind tunnel





Figure 9: North elevation for the development at One Wellington, St Kilda - comparison between the revised design and the original design tested in the wind tunnel