

16 September 2020

CPP Project 14425

Mirvac
Level 28, 200 George St
Sydney NSW 2000
Australia

Attn: Mr Lachlan Attiwill
Project: Harbourside Shopping Centre

KEY ISSUE	RESPONSE & DOCUMENT REFERENCE
Wind Impacts	Detailed wind tunnel testing has been undertaken for envelope and indicative designs - see CPP (2020). This memo confirms subsequent modifications to the design are not significant in terms of impact on pedestrian wind comfort.

Dear Mr Attiwill,

CPP has provided wind tunnel tests in June 2020 of the pedestrian level wind conditions around the Harbourside shopping centre in the existing, proposed envelope, and indicative design as exhibited in April 2020. This letter addresses recent changes to the design of the proposed development in terms of wind comfort and safety impacts. The amendments to the design relevant to wind impacts are shown in Figure 1 and are summarised as follows:

- Additional four levels to residential tower increasing the envelope height from RL 153.75 to RL 166.95.
- Removal of podium massing on the north side of the site (2,000 m2 of commercial area adjacent to Pyrmont bridge), and addition of a rooftop park (Guardian Square)

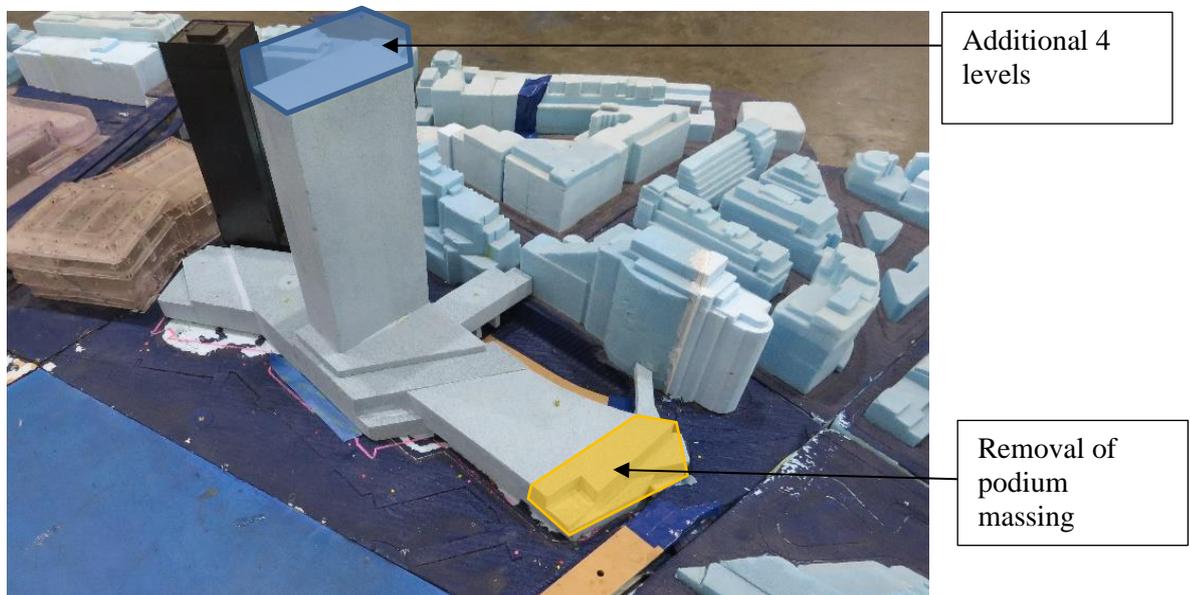


Figure 1: CPP wind tunnel model indicating proposed modifications to envelope design



At the north side of the site, wind conditions are relatively mild with Lawson wind comfort ratings suitable for pedestrian sitting and standing. During wind tunnel testing of the previous design, only minor differences in the wind conditions were observed between existing, proposed envelope, and indicative designs. In individual locations the proposed configurations were found to slightly increase the wind speeds, however the ground level wind conditions were found to be mostly similar to the existing conditions around the site. Based on these wind tunnel test results, the current modification to the podium massing as shown in Figure 1 is not expected to have any significant impact on the pedestrian level wind environment in this area. Conditions are expected to remain suitable for the intended uses of this space suitable for pedestrian sitting and standing under the Lawson comfort criteria. Similar conditions to those reported at ground level at the northern part of the site are expected in Guardian Square, with most of the square suitable for pedestrian standing. For areas on the square intended for outdoor seating, mitigation strategies may be required, which can be developed during detailed design.

An increase in the overall height of the proposed tower may be expected to create a minor increase in wind speeds near the tower base as a result of increased downwash, however the magnitude of such increases would not be sufficient to have any measurable impact on pedestrian comfort or safety relative to the design tested in June 2020. It is noted that the height increase represents about 10% of the overall height above ground level. The reported wind conditions and associated recommendations (CPP, 2020) therefore remain applicable to the updated scheme.

Please do not hesitate to contact me if you have any questions regarding any aspect of this letter.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'J. Paetzold', is written over a faint, larger version of the same signature.

Joe Paetzold
Engineering Manager

cc: Thomas Evans, Senior Engineer

REFERENCES

Cermak Peterka Petersen Pty Ltd (CPP) (2020), Pedestrian Wind Tunnel Tests for Harbourside Shopping Centre Development, dated 16th September 2020.