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City of Yarra

24/08/2020

Corner Moor and Napier Street
Fitzroy, Australia

Ref: 30N-20-0171-GCO-6788844-0

Attention: Amy Hodgen

Dear Amy Hodgen,

60 Chandler Hwy, Alphington

This peer review of the MEL Consultants Environmental Wind Speed Measurements report (Report 174/19-WT-ENV-00) is based on Vipac's experience as a wind-engineering consultancy.

Vipac have reviewed the wind tunnel test report and the plans provided (see the list of files in the attachment). Our comments are as follows:

- The MEL Consultants Environmental Wind Speed Measurements report has been prepared based on a 1:400 scale model wind tunnel test. The report includes the following main Sections: Introduction, Environmental Wind Criteria, Model and Experimental Techniques, Discussion of Results and Conclusions. Detailed test data were presented in the Figure section.
- We have no issue with the criteria for wind environmental conditions developed by MEL Consultants, which was adapted in this report.
- In the Model and Experimental Techniques section, a 500 m minimum radius proximity model was used and is substantially sufficient. The Category 3 exposure was used in the assessment; this was also appropriate. Hot wire anemometers were used to measure the local wind speeds at various particular locations for the ground level (see Figure 1 in the attachment).
- In the Discussion of Results section, the report clearly addressed the wind speed measurement results street by street around the development.
- The test results indicated that all test locations fulfil the recommended wind criteria at ground floor test locations.

Vipac notes that, at Level 4, the two open balconies between Buildings B and C are quite large (about 50 m² each, see Figure 2 in the attachment) and the wind conditions at all balconies including these large balconies have not been assessed in the report. It would be acceptable if the authority only requires ground level wind conditions be assessed for town planning purposes. However, Vipac recommends the wind environment in these large balconies areas should be considered, at least via a desktop assessment, and meet walking criterion as a minimum.

24/08/2020

In conclusion, the MEL Consultants Environmental Wind Assessment used the proper model, experimental and analysis methodology to assess the wind effects on the pedestrian level spaces around the proposed development. The conclusions are substantially valid.

Vipac recommends MEL Consultants to provide an assessment to the large balconies on Level 4 between Buildings B and C.

Yours sincerely,

Vipac Engineers & Scientists Ltd





Zhuyun Xu
Senior Wind Engineer



Sophie Lamande
Wind Group Leader

Attachments:

File list reviewed

Name	Date modified
 174_19_WT_ENV_00__OuterCircle_Alphington	16/07/2020 4:27 AM
 18022_60 Chandler Highway Alphington_TP RFI_Post Referrals_200717	17/07/2020 12:20 ...

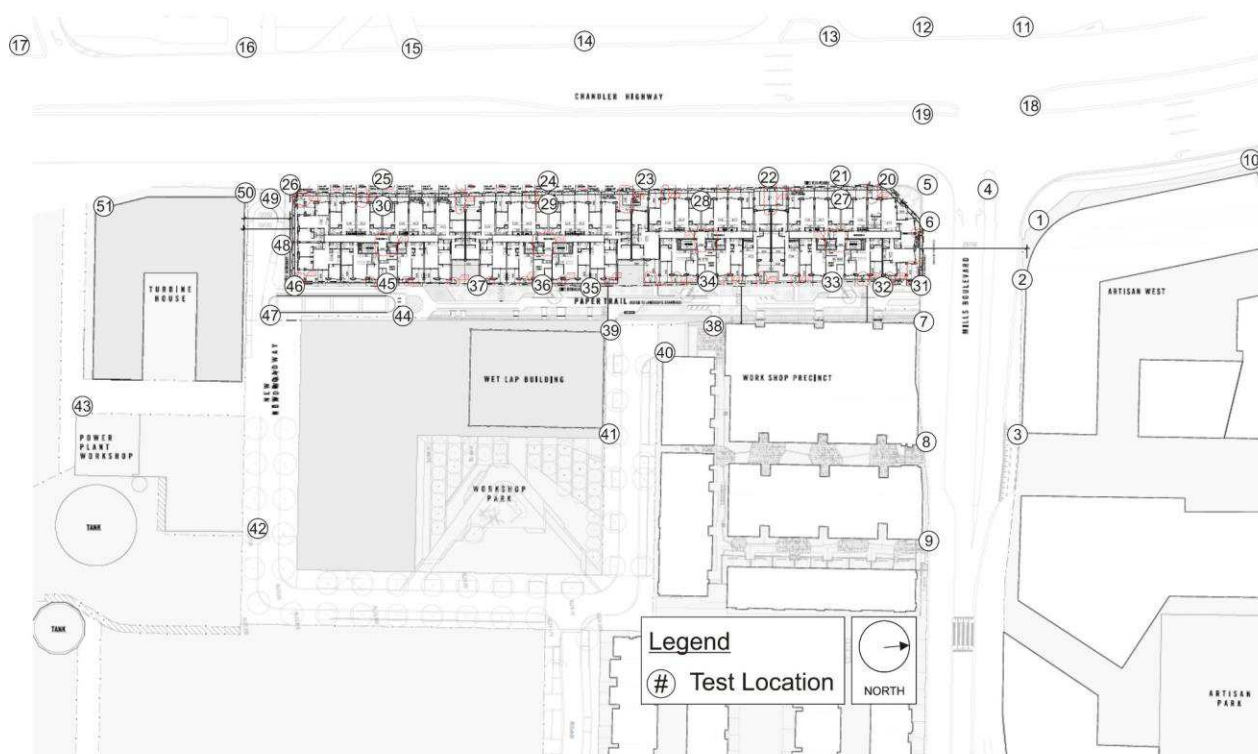


Figure 1: Test Locations

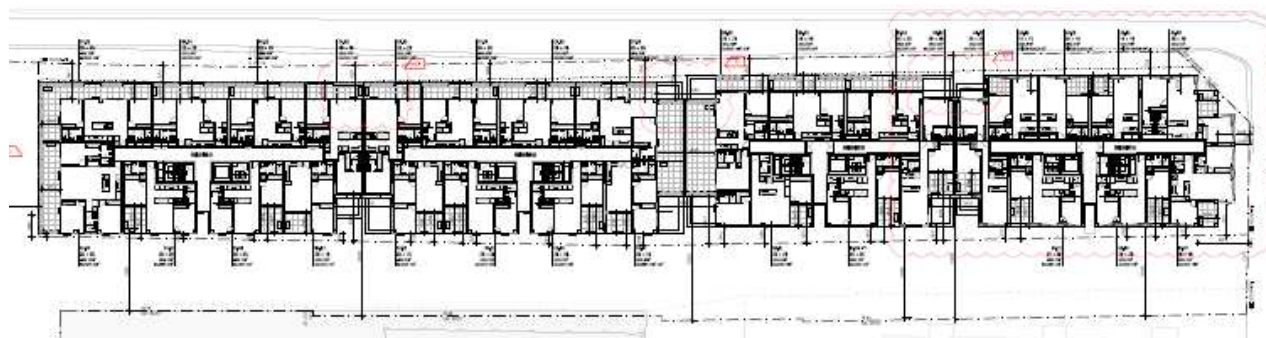


Figure 2: Level 4 plan