

5 April 2022

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Our ref 273467-58

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Powerhouse Parramatta – Environmental Wind Conditions

Dear Tom,

Further to our recent correspondence, please find herein a qualitative wind assessment detailing the impact of the retention of the St. Georges Terrace on the local wind climate. This report follows on from a review of the latest drawings and the previous wind assessment report Arup (2020).

The existing heritage two-storey St. Georges Terrace are located on the corner of Phillip Street and Wilde Avenue, Figure 1. From a wind perspective, the massing of St. Georges Terrace is minimal compared with the proposed Powerhouse buildings, Figure 2.



Figure 1: Ground floor plan

From the previous wind assessment report, the wind conditions around the facility were typically classified as suitable for pedestrian sitting and standing, Figure 3. The dominant wind directions causing flow acceleration around the proposed development are from the north-east, and south-west quadrants. The location of St. Georges Terrace would be expected to have a minimal impact on the overall flow pattern around the dominant massing of the proposed Powerhouse buildings for all wind directions. The retention of St. Georges Terrace would be expected to create some locally slightly calmer and slightly windier areas depending on the incident wind direction.



Figure 2: Elevations from Phillip Street (R) and Wilde Avenue (L)

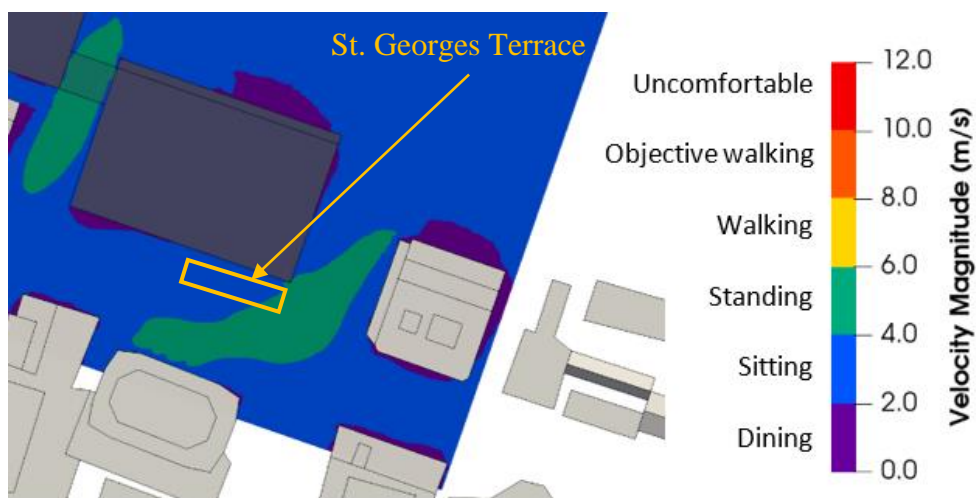


Figure 3: Comfort classification from previous wind report with approximate location of St. Georges Terrace

In summary, it is considered that the retention of the St. Georges Terrace would have minimal impact on the predicted wind conditions around the site.

I hope this is of assistance, please do not hesitate to contact me on numbers below if you have any questions regarding any aspect of this report.

Yours sincerely

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Associate Principal

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References

Arup (2020), Powerhouse Precinct Parramatta, Powerhouse SSDA report – Wind impact assessment, PHM-ARP-REP-WI-0003 dated 17 April 2020.