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Lendlease (Millers Point) Pty Ltd

International Tower 3
300 Barangaroo Ave, Barangaroo

Attn: Daniel Baxter – Development Manager

**RE: BARANGAROO SOUTH, STAGE 1B
RESPONSE TO IPC WIND MITIGATION QUERIES AND TREATMENT
OVERVIEW**

1 Introduction

This letter provides a response to the letter provided by the NSW Independent Planning Commission (IPC) (dated 24th of September, 2019) with regards to the proposed wind mitigation measures for the trafficable areas within Stage 1B of the Barangaroo South development site. The letter also queries the effectiveness of the proposed trees indicated within the latest landscape plan of the development (SSD 6966) in wind mitigation, if these trees are not mature at the time of initial planting/installation. A detailed wind tunnel study was undertaken by Windtech Consultants for the assessment of pedestrian wind amenity to the various trafficable outdoor areas within and around Stage 1B of the Barangaroo South development, and the results were presented within the following reports:

- Tower R4A (report ref: WA567-11F01(rev7), dated: November 27, 2015).
- Tower R4B (report ref: WA567-11F02(rev6), dated November 27, 2015).
- Tower R5 (report ref: WA567-11F03(rev7), dated September 03, 2018).

This letter also provides an overview of the wind mitigation treatments which were recommended in the abovementioned wind tunnel study reports.

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2 Stage 1B, Barangaroo South Wind Mitigation Summary

Windtech Consultants have previously undertaken detailed wind tunnel testing for Stage 1B of Barangaroo South, with the results presented within the aforementioned reports. The wind tunnel study assessed wind conditions affecting pedestrians within and around the Southern Precinct of the development site with reference to pedestrian comfort and safety. The results presented in these reports indicated that wind conditions for a number of areas exceeded the appropriate pedestrian comfort and/or safety criteria. Hence wind mitigation treatments were recommended, summarised as follows:

- Inclusion of extensive tree planting for the site. It is noted that extensive tree planting is included within the latest approved Stage 1B Public Domain landscape plans (SSD7944).
- Inclusion/retention of various tower pedestrian awnings. It is noted that these awnings are included in the latest architectural drawings.
- Inclusion of portable screening, in particular around café seating areas, that is able to be controlled by the various commercial space tenants if required.
- Inclusion of doors at the Strada area between Towers R4A and R4B. It is noted that these doors are included in the latest architectural drawings.

It should be noted that for the trees to be effective in wind mitigation they should be densely foliating and of an evergreen species. Furthermore, the trees should be included in groupings to improve their ability to slow the prevailing winds as they approach the various tower structures. The submitted R5 landscape plan (SSD 6966) appears to follow all of these recommendations.

The letter provided by the NSW IPC also raised a query related to the effectiveness of the proposed trees in wind mitigation if these trees are not mature at the time of initial planting/installation. Lendlease have advised Windtech that the trees proposed in SSD 6966 will have a minimum height of 3 meters and a canopy of spread 2.5 metres upon initial planting. Anchoring/bracing will be provided for the trees until such time as the root systems are established. It is also noted that wind mitigation will improve as the trees mature over time.

It is also expected that by the time that Tower R5 is complete, that the remainder of the Stage 1B precinct will also have been completed, including all wind mitigation measures such as trees across the One Sydney Harbour site, negating the requirement for temporary hoardings.

Hence, with the inclusion of these trees, and based on the results obtained from prior wind tunnel testing, suitable wind conditions will be achieved for the development even when the trees are in their initial state.

Regards,



Simon Ronald

Associate Director - Windtech Consultants Pty Ltd