## GRADIENTWIND

October 23, 2024

Urban Solutions Planning & Land Development 3 Studebaker Place, Unit 1 Hamilton, Ontario L8L 0C8

> Re: Addendum to Pedestrian Level Wind Study 175 John Street North, Hamilton, ON GW File No.: 22-275-WTPLW – Addendum V2

Gradient Wind Engineering Inc. previously completed a detailed pedestrian level wind study for the proposed residential development located at 175 John Street North in Hamilton, Ontario. This letter provides a summary of relevant architectural changes to the buildings design which have been made since the study was performed, as well as the anticipated impact of those changes on the predicted pedestrian wind conditions. For a complete summary of the methodology and results of the original pedestrian wind study, please refer to Gradient Wind report #22-275-WTPLW, dated December 1<sup>st</sup>, 2022.

Upon review of the updated drawings by SRM Architects Inc. dated August 16<sup>th</sup>, 2024, the following significant changes to the design were noted:

- The building footprint has significantly reduced, stepping back from the north elevation, from a square to rectangular planform. The overall building height has reduced from 19-storeys to 12storeys.
- 2. Proposed plantings now circumnavigate the full study site.
- 3. At grade, outdoor loading and parking spaces are now available along the north elevation, and an exterior amenity space, with building access, has been included at the southeast corner.
- 4. The Level 3 north elevation amenity terrace has been eliminated.

## GRADIENTWIND ENGINEERS & SCIENTIST

Other minor variations in architectural drawings are not expected to significantly influence the results and recommendations of the wind study. The effects of the noted significant changes above are as follows:

- 1. A reduction in building height and overall footprint is strongly correlated to a decrease in local windspeeds. Therefore, the significant decrease in size of the 175 John Street development is expected to result in grade level wind comfort that is similar to or calmer than those observed in the original report. Conditions previously recorded as uncomfortable along the north elevation during the winter months (Sensors 30 & 31) are expected to now be suitable for walking or better on a seasonal basis, which is acceptable.
- 2. The proposed row of plantings circumnavigating the perimeter of the study site, if installed as shown on the landscaping plan, are expected to have a marginal calming effect on the overall recorded grade-level wind speeds, as prominent winds approaching the study site are buffered.
- 3. Considering items (1.) and (2.) above, the loading and parking areas along the north elevation are expected to be suitable for walking or better throughout the year, which is acceptable. The proposed outdoor amenity and various primary building access points at the southeast corner are expected to experience winds suitable for sitting during the summer and standing or better throughout the rest of the year, which is appropriate.
- 4. Mitigation recommendations pertaining to the previous Level 3 amenity terrace are no longer relevant.

Please advise the undersigned of any questions or concerns.

Sincerely,

Gradient Wind Engineering Inc.

Nick Petersen, P.Eng., Wind Engineer



Urban Solutions Planning & Land Development / SRM Architects Inc. **175 JOHN STREET, HAMILTON: ADDENDUM TO PEDESTRIAN LEVEL WIND STUDY**