

June 27, 2016

Adi Morgan Developments (Lakeshore) Inc.  
4190 South Service Road, Suite 200  
Burlington, Ontario L7L 4X5

Attn: Ms. Lorraine Roberts:

[lorraine@adidevelopments.com](mailto:lorraine@adidevelopments.com)

**Re: 374 and 380 Martha Street  
Pedestrian Wind Study – Drawing Review & Addendum  
Novus File No. 16-0121**

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Dear Ms. Roberts:

At the request of Adi Group Developments Inc., this letter by Novus Environmental Inc. (Novus) provides our opinion on the potential affect the recent design changes to the proposed 374 and 380 Martha Street development in Burlington may have on the pedestrian wind conditions in the surrounding area. This letter is in the support of the resubmission for the Official Plan Amendment (OPA) and Zoning By-Law Amendment (ZBA) applications. Novus originally conducted a Pedestrian Wind Study using wind tunnel tests in the summer of 2014, when the development was referred to as 374 Martha Street. Our report of August 28, 2014 summarized the pedestrian wind comfort conditions surrounding the proposed development.

Updated architectural drawings (dated June 22, 2016) were compared to the original drawings used for the construction of the wind tunnel model in the summer of 2014. In terms of potential influences on pedestrian wind conditions, the following relevant differences were noted between the two sets of drawings.

- The original footprint of the building was L-shaped, with the missing mass located at the northeast corner of the current property. Now, the first floor and mezzanine are rectangular. The tower is L-shaped, same as the original massing, starting at Level 2, with setback at the northwest corner at Level 4 to accommodate the outdoor pool.
- Previously, the L-shaped tower had a footprint of approximately 34.6m (along the south facade) by 26.4m along the west facade, starting at Level 5. Currently, the L-shaped tower begins at Level 4 and has a footprint of approximately 33.4m (along the south facade) by 25.4m along the west facade.

- Previously, the outdoor amenity space was located at the northwest corner of Level 5. Now, there is an outdoor amenity space at the northeast corner of Level 2, as well as at the northwest corner of Level 4. In addition, there is a small amenity terrace on Level 20, on the south side of the building.

From a wind perspective, the most significant change is inclusion of a rectangular podium mass at a height of 6.5m over the entire site. This creates a horizontal element at the northeast corner of the site which is a positive design feature. This horizontal element is expected to aid in disrupting the downwashing flows from westerly winds around the north facade of the development, potentially improving the wind conditions in the immediate vicinity of the northeast corner of the development. For the remaining areas of grade level, both on-site and off-site, the wind conditions presented in our previous report from August 28, 2014 are still applicable.

On the new outdoor amenity space on Level 2, wind conditions are expected to be similar to those shown on Level 5 in the previous report, therefore comfortable for standing or leisurely walking in the summer.

The following conclusions were reached in the previous report and remain applicable:

- Wind conditions at the residential and retail entrances to the proposed development were suitable year-round.
- On the streets surrounding the proposed development, wind conditions were generally suitable for leisurely walking or better throughout the year, which is appropriate for sidewalks. At the nearby transit stop, a shelter should be considered by the City, to protect pedestrians from the accelerated wind flows through the area.
- The safety criterion was met in all locations for both configurations.

The anticipated wind conditions will be confirmed through wind tunnel testing during the Site Plan Approval (SPA) application process.

Should you have any questions or comments, please feel free to contact us.

Sincerely,

**Novus Environmental Inc.**



Tahrana Lovlin, MAES, P.Eng.  
Specialist, Microclimate



Jenny Vesely, P. Eng.  
Intermediate Engineer