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December 20, 2024

Gabriel DiMartino
Acamar Dwelling Corporation
8700 Dufferin Street
Vaughan, ON L4K 4S6

Re: 2072 Lakeshore Road, Burlington, Ontario
RWDI Reference No. 2401745

Dear Gabriel,

Rowan Williams Davies & Irwin Inc. ("RWDI") has prepared this letter to comment on the pedestrian wind conditions of the proposed development at 2072 Lakeshore Road in Burlington, Ontario. RWDI conducted a wind tunnel assessment for this project in June 2024 and our findings are summarized in the following report which also can be found attached to this letter:

> *2072 Lakeshore Road, Burlington, Ontario: Pedestrian Wind Study. RWDI #2401745. June 3, 2024, by Kamran Shirzadeh, Neetha Vasan, and Jordan Gilmour.*

The tests were conducted for Existing, Proposed and Future configurations of the site and surroundings. The study evaluated the architectural massing received on May 1, 2024.

This study indicated that, wind conditions on the existing project site are mostly suitable for general pedestrian uses of the area, however, uncomfortable conditions can occur during the winter at a localized area to the west of the site along Lakeshore Road near a tall existing building; same area is exposed to high wind gusts that can exceed the wind safety criterion.

With the proposed building in place, increased wind speeds were predicted locally around the building perimeter; the predicted wind conditions with the addition of the proposed project were comfortable for the intended pedestrian use at all assessed areas during the summer, and most areas in the winter. In the winter, uncomfortable conditions were predicted locally at the west corner of the building. The off-site uncomfortable/unsafe conditions were expected to be enhanced by the addition of the proposed project. the resultant wind conditions were expected to meet the wind safety criterion at grade. Wind speeds on the podium rooftop were expected to be higher than desired for the proposed programming (seating and dining) during the summer and winter.

The addition of the known future developments around the site are expected to slightly reduce wind speeds on site; however, it can increase wind speeds to the east of the site (near the future addition).

Conceptual wind control strategies applicable to each area of interest were discussed in the main body of the report.

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RWDI received the latest architectural design package on December 19, 2024. Image 1 compares the roof plans and south elevation views of the previous and latest designs. While the overall design language and building footprint remain comparable, the latest design features a shorter tower, reduced from 27 levels to 20 storeys, with the overall height decreasing from approximately 90 m to 71 m. As a result, the overall wind-building interactions are expected to be reduced, and wind conditions are anticipated to be improved, compared to the predictions from the wind tunnel study.



Image 1: Project roof plans and south elevation views, previous design as studied (Top Images), latest design (Bottom Image) - Courtesy of Graziani & Corazza Architects Inc.

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Further wind tunnel testing is recommended to quantify the reduction in wind impact and to accurately assess the necessity of any wind mitigation measures.

We trust the above satisfies the requirements for conditional zoning approval. Should you have any questions or require additional information, please do not hesitate to contact us.

Yours truly,
RWDI



Kamran Shirzadeh, M.E.Sc
Technical Coordinator



Jordan Gilmour, P.Eng.
Project Manager