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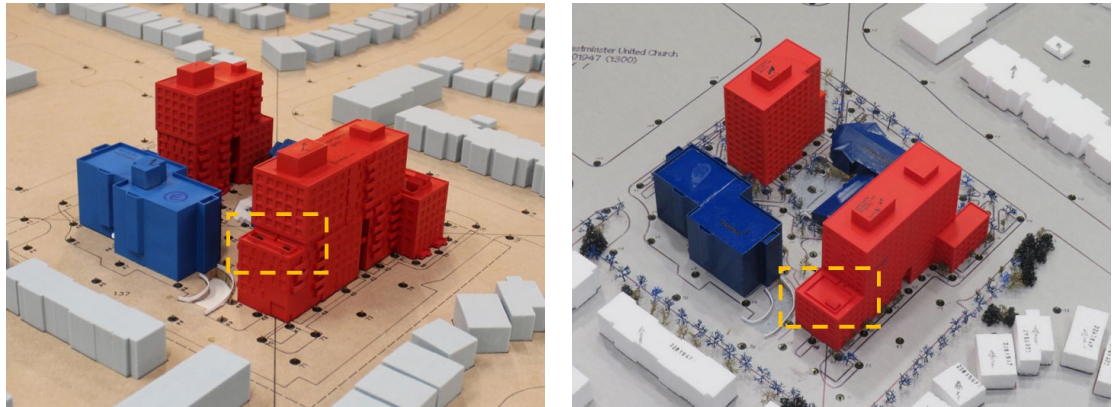
**Re: Pedestrian Level Winds Memo  
Westminster United Church (4094 Tomken Road)  
RWDI Reference No. 2201947**

Dear Ms. Wilkinson,

Rowan Williams Davies & Irwin Inc. (RWDI) has prepared this memorandum to comment on the massing updates and the above-grade wind conditions based on feedback from the city of Mississauga. RWDI conducted an initial wind tunnel study for the project in July of 2022 which evaluated the baseline conditions for the original design of the project. The findings of this test were presented in our report titled "20220722 RWDI 2201947 DRF PedestrianWind WestminsterUnitedChurch4094TomkenRoad, July 22, 2022". An additional wind tunnel test was conducted in August of 2023 which included wind control features and the latest design of the project. The predicted wind conditions from that wind tunnel study development were presented in our report titled "20230810 RWDI 2201947 REP WestminsterUnitedChurch, August 10, 2023".

### **Design Changes**

Between the two tests, the design team made minor changes to the building massing. Image 1 shows a comparison of the building massings that were used in the wind tunnel tests. Highlighted in the images is the only pedestrian accessible above-grade amenity space, which was instrumented for the first wind tunnel test. The latest drawings received by RWDI on July 7, 2023, indicate that the other above-grade areas are proposed as green roofs. The amenity space was originally located on Level-7 and is now on Level-6. Positively from a wind mitigation perspective, the perimeter guardrail was retained in the latest design of the space.



**Image 1: Original Wind Tunnel Study Model (Left) Updated Design (Right)**

### **Predicted Wind Conditions**

The initial report indicated that wind conditions at Locations 132 to 135 (Figures 1B and 2B) would offer conditions comfortable for sitting and standing during both summer and winter seasons. Given the minor massing changes between the two tests and that the exposure to prevailing winds on the amenity space has not changed, RWDI anticipates similar wind conditions for the latest design of the project. Based on the proposed programming, these conditions may be deemed acceptable.

### **Conclusions**

Minor changes in building geometry were made between the two wind tunnel tests conducted by RWDI. In RWDI's opinion, the above grade results presented for the Level-7 amenity space (now Level 6) in the initial report are representative of the anticipated conditions for the latest design of the project.

We trust the above assessment satisfies your requirements for the project currently. Should you have any questions or require additional information, please do not hesitate to reach out.

Yours very truly,

**RWDI**

**Timothy Wiechers, M.Sc.**  
Senior Technical Coordinator

**Scott Bell, GSC**  
Project Manager