FINAL REPORT

3115 HURONTARIO STREET

MISSISSAUGA, ONTARIO

PEDESTRIAN WIND STUDY

RWDI # 2406897

March 4, 2025

SUBMITTED TO

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EXECUTIVE SUMMARY

RWDI was retained to conduct a pedestrian wind assessment for the proposed development at 3115 Hurontario Street in Mississauga, ON. The assessment was based on the wind tunnel testing conducted for the proposed development site with existing and future surroundings. The location, footprint, and height of the future buildings were determined from the context plan received from the design team by RWDI on January 20, 2025.

The wind tunnel tests included proposed landscaping on-site, but trees were modelled leafless in order to provide more conservative wind conditions. The results were analyzed using the regional wind climate records and evaluated against the Mississauga Pedestrian Wind Criteria for pedestrian comfort (pertaining to common wind speeds conducive to different levels of human activity) and pedestrian safety (pertaining to infrequent but strong gusts that could affect a person's footing). The predicted wind conditions are presented in Figures 1 through 3, and Table 1. Note that references to the orientation of streets and built features are based on Project North which is approximately aligned with Kirwin Avenue.

Key Findings:

- The proposed project will be a 134 m tall (39-storey) mixed-use development, with an outdoor charity space on the ground floor to the north, and outdoor residential amenity terraces on Levels 3 and 7.
- Throughout the year, appropriate wind comfort conditions are expected at most areas assessed on the ground level, including the residential and charity entrances. Borderline uncomfortable wind speeds are predicted around the northwest corner of the proposed building in the summer and winter, around the southwest corner of the building and along the sidewalk of Hurontario Street during the winter.
- Higher than desired wind speeds are expected in the outdoor charity space on the north side of the proposed building, year-round.
- In the summer, when outdoor amenity areas are anticipated to be used most often, calm wind speeds are expected at most areas on the above-grade terraces. Higher wind activity is expected on the west terrace of Level 7. If desired, lower wind speeds for prolonged seated uses like dining, lounging, etc. may be achieved by local wind control measures, as discussed in the report.
- In the winter, elevated wind speeds are expected at most areas on the upper-level terraces, but this may not be of concern as the areas would not be used frequently during the colder months.
- Wind speeds that meet the pedestrian wind safety criterion are predicted in most areas assessed at and above grade. The criterion is expected to be exceeded marginally at the southwest corner of the proposed building, on the sidewalks of Hurontario Street and Hillcrest Avenue, and at a localized area on the Level 7 west terrace.
- Generally, the predicted exceedances of comfort and safety limits at grade are considered marginal, typically ranging from 1 to 2 km/h above the 20 km/h comfort threshold and 2 to 3 km/h above the 90 km/h safety threshold.
- Wind control strategies are discussed in the report for the design team's consideration.

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1 INTRODUCTION

RWDI was retained to conduct a pedestrian wind assessment for the proposed development at 3115 Hurontario Street in Mississauga, ON. This report presents the project objectives, background, approach, and discusses of the results from RWDI's assessment and provides conceptual wind control measures, where necessary. Our Statement of Limitations as it pertains to this study can be found in Section 4 of this report.

Note that in the following discussions references to the orientation of streets and built features are based on Project North which is approximately aligned with Kirwin Avenue.

1.1 Project Description

The project (site shown in Image 1) is located north of Hurontario Street and east of Kirwin Avenue. It is a mixed-use development consisting of 39 storeys, with an approximate height of 134 m. The proposed building will have an outdoor charity space on the ground floor and outdoor residential amenity terraces on Levels 3 and 7.

1.2 Objectives

The objective of the study was to assess the wind conditions in pedestrian areas on and around the study site and provide recommendations for minimizing adverse effects if needed. This quantitative assessment was based on wind speed measurements on a scale model of the project with existing and future surroundings in one of RWDI's boundary-layer wind tunnels. These measurements were combined with the local wind records and compared to the Mississauga criteria for gauging wind comfort and safety in pedestrian areas. The assessment focused on critical pedestrian areas, including building entrances, public sidewalks/walkways, and outdoor amenity areas.

Image 1: Aerial View of the Existing Site and Surroundings (Photo Courtesy of Google™ Earth)

2 BACKGROUND AND APPROACH

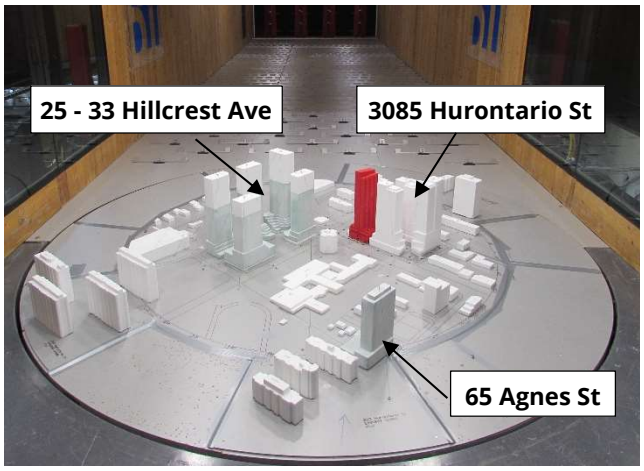
2.1 Wind Tunnel Study Model

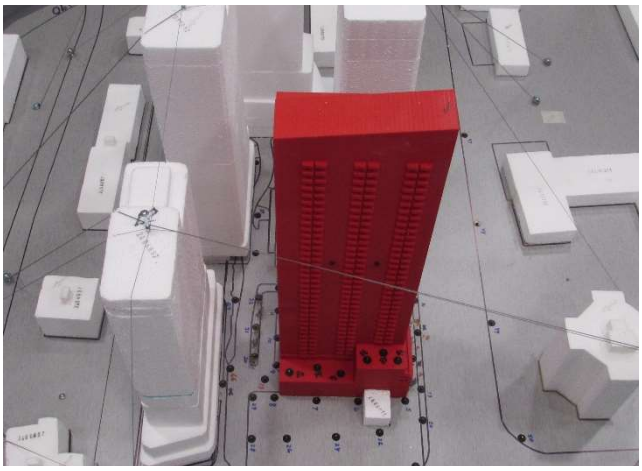
To assess the wind environment around the proposed project, a 1:300 scale model of the project site and surroundings was constructed for the wind tunnel tests of the proposed project with existing and future surroundings (Image 2). The future buildings included:

- 3085 Hurontario Street,
- 25 - 33 Hillcrest Avenue, and
- 65 Agnes Street.

The location, footprint, and height of the future buildings were determined from the context plan received from the design team by RWDI on January 20, 2025.

The wind tunnel model included all relevant surrounding buildings and topography within an approximately 360 m radius of the study site. The wind tunnel test included proposed landscaping on-site, such as leafless trees, in order to provide more conservative wind conditions. The wind and turbulence profiles in the atmospheric boundary layer beyond the modelled area were also simulated in RWDI's wind tunnel. The wind tunnel model was instrumented with 87 specially designed wind speed sensors to measure mean and gust speeds at a full-scale height of approximately 1.5 m above local grade in pedestrian areas throughout the study site. Wind speeds were measured for 36 directions in a 10-degree increment. The measurements at each sensor location were recorded in the form of ratios of local mean and gust speeds to the mean wind speed at a reference height above the model. The placement of wind measurement locations was based on our experience and understanding of the pedestrian usage for this site.





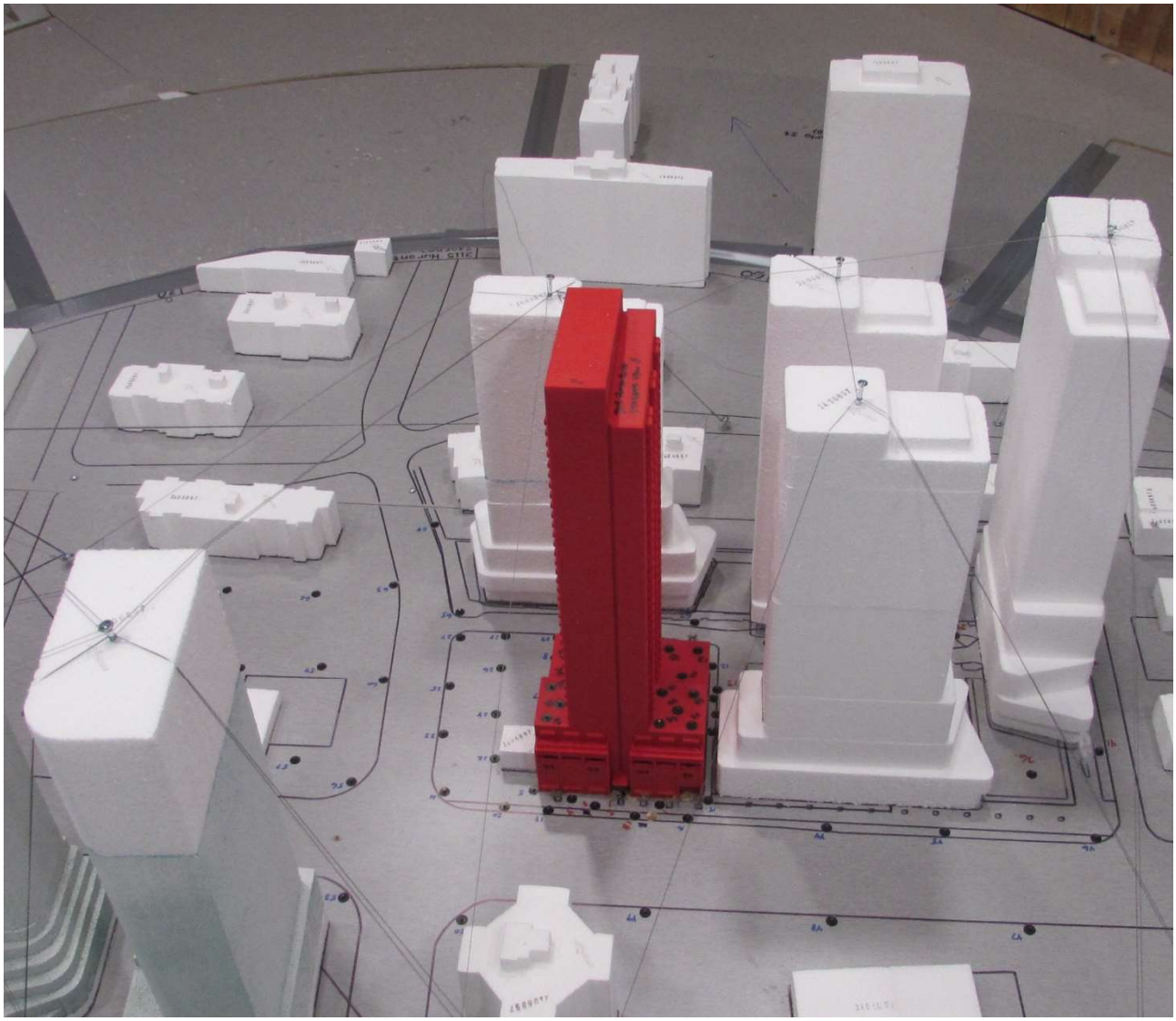
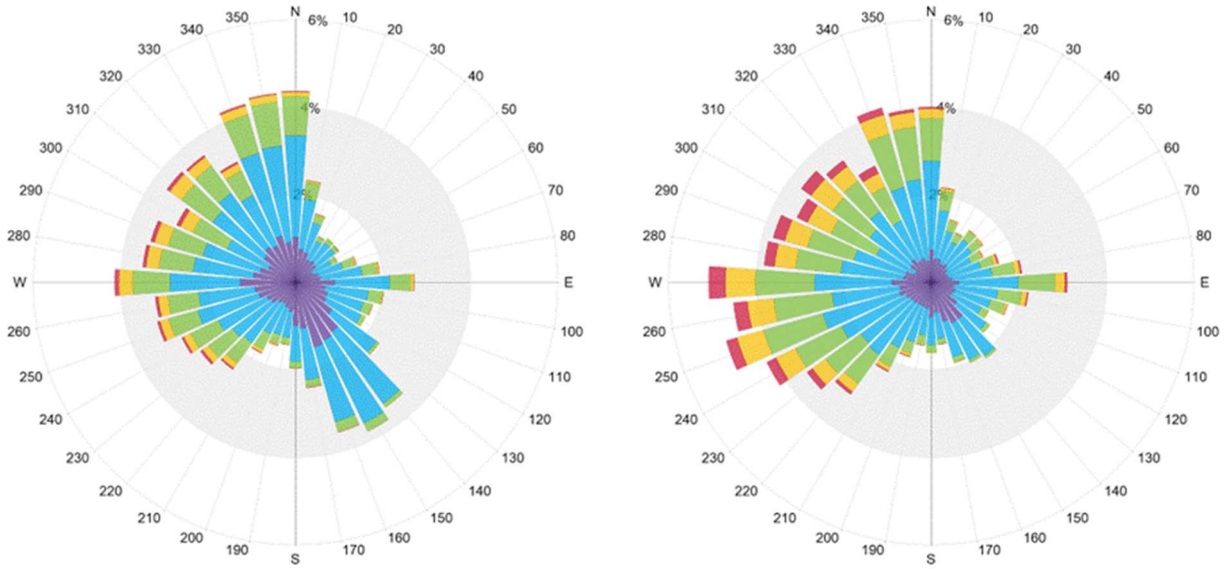


Image 2: Wind Tunnel Study Model – Proposed + Future Buildings

2.2 Meteorological Data

Wind statistics recorded at Toronto Pearson International Airport between 1990 and 2020, inclusive, were analyzed for the Summer (May through October) and Winter (November through April) seasons. Image 3 graphically depicts the directional distributions of wind frequencies and speeds for these two seasons. Winds from the southwest, west and northwest directions are predominant during both summer and winter. During the winter season, the prevailing winds from the east direction are also frequent, as indicated by the wind roses. The southeast winds are frequent in the summer, but typically of low wind speeds. Strong winds of a mean speed greater than 30 km/h measured at the airport (at an anemometer height of 10 m) occur 4.8% and 11.4% of the time during the summer and winter seasons, respectively.

Wind statistics were combined with the wind tunnel data to predict the frequency of occurrence of full-scale wind speeds. The full-scale wind predictions were then compared with the wind criteria for pedestrian comfort and safety.



Summer (May – October) **Winter (November – April)**

Wind Speed (km/h)	Probability (%) Summer	Winter
Calm	5.3	3.7
1-10	30.7	22.5
11-20	42.9	39.9
21-30	16.2	22.6
31-40	3.9	8.1
>40	0.9	3.3

Image 3: Directional Distribution of Winds Approaching Toronto Pearson International Airport between 1990 and 2020

2.3 Mississauga Pedestrian Wind Criteria

The Mississauga pedestrian wind criteria, developed in June 2014, are specified in the Urban Design Terms of Reference, "Pedestrian Wind Comfort and Safety Studies". The following defines the criterion in detail.

Comfort Category	GEM Speed (km/h)	Description
Sitting	≤ 10	Calm or light breezes desired for outdoor restaurants and seating areas where one can read a paper without having it blown away
Standing	≤ 15	Gentle breezes suitable for main building entrances and bus stops
Walking	≤ 20	Relatively high speeds that can be tolerated if one's objective is to walk, run or cycle without lingering
Uncomfortable	> 20	Strong winds of this magnitude are considered a nuisance for most activities, and wind mitigation is typically recommended

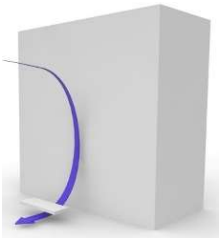
Notes:
(1) GEM Speed = max (Mean Speed, Gust Speed/1.85) and Gust Speed = Mean Speed + 3*RMS Speed; and,
(2) GEM speeds listed above are based on a seasonal exceedance of 20% of the time between 6:00 and 23:00.

Safety Criterion	Gust Speed (km/h)	Description
Exceeded	> 90	Excessive gust speeds that can adversely affect a pedestrian's balance and footing. Wind mitigation is typically required.

Notes:
(1) Based on an annual exceedance of 9 hours or 0.1% of the time for 24 hours a day.

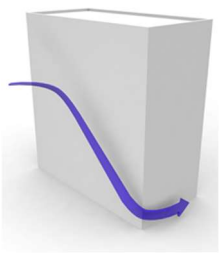
2.4 Generalized Wind Flows

In our discussion of wind conditions, reference may be made to the following generalized wind flows (Image 4):



DOWNWASHING

Tall buildings tend to intercept the stronger winds at higher elevations and redirect them to the ground level. This is often the main cause of wind accelerations around large buildings at the pedestrian level.



CORNER ACCELERATION

When winds approach at an oblique angle to a tall façade and are deflected down, a localized increase in the wind activity or corner acceleration can be expected around the exposed building corners at the pedestrian level.

Image 4: Generalized Wind Flows

If these building/wind combinations occur for prevailing winds, there is a greater potential for increased wind activity. Design details such as setting back a tall tower from the edges of a podium, deep canopies close to ground level, etc. can help reduce wind speeds. The use of wind screens and landscaping at grade can also help reduce wind speeds locally (Image 5). The choice and effectiveness of these measures would depend on the exposure and orientation of the site with respect to the prevailing wind directions and the size and massing of the proposed buildings.

Podium/tower setback and canopy, wind screen, landscaping (left to right)

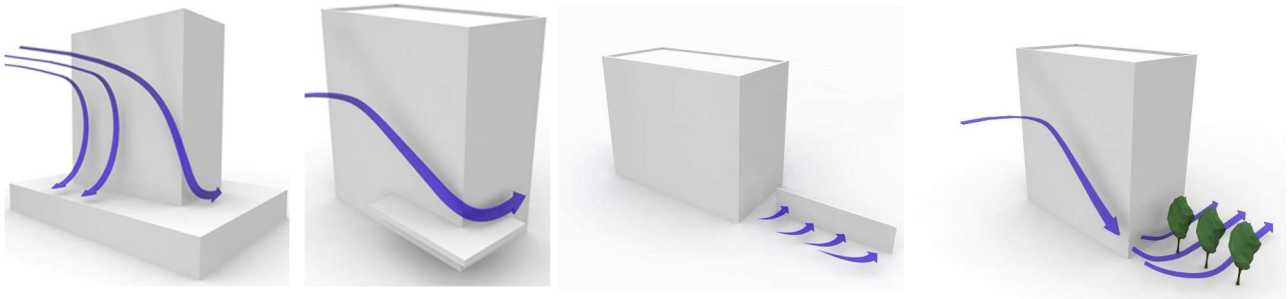


Image 5: Common Wind Control Measures

3 RESULTS AND DISCUSSION

The predicted wind conditions are shown on a site plan in Figures 1 through 3 located in the "Figures" section of this report. These conditions and the associated wind speeds are also represented in Table 1, located in the "Tables" section of this report. The following is a detailed discussion of the suitability of the predicted wind conditions for the anticipated pedestrian use of each area of interest.

3.1 Grade Level (Locations 1 through 67)

The proposed building will be relatively sheltered from prevailing winds by a cluster of tall future buildings to the east and west. While some areas may experience high wind speeds due to direct exposure to prevailing winds or wind interactions with the surrounding tall buildings, most areas around the site are anticipated to experience moderate wind speeds due to the sheltering provided by the east and west tall buildings.

The residential and charity entrances are situated along the south façade, near Locations 2 and 4, respectively. Wind speeds near the entrances are predicted to be comfortable for sitting or standing throughout the year, which is suitable for entrances where pedestrians may linger (Figures 1 and 2).

In the summer, wind conditions in most areas on and around the project site are predicted to be comfortable for standing or walking (Figure 1). While walking conditions are appropriate for the intended use of sidewalks/walkways, they are higher than desired for areas intended for passive usage like the outdoor charity space on the north side of the building (Locations 9, 29 and 30 in Figure 1). Uncomfortable wind conditions are predicted to occur in a localized area at the northwest corner of the building (Location 28 in Figure 1).

In the winter, higher wind speeds conducive to walking are expected in most of the areas assessed due to seasonally stronger winds, with uncomfortable wind speeds near the southwest and northwest corners of the building (Locations 18 and 28 in Figure 2), and on the sidewalk of Hurontario Street (Locations 48 and 49 in Figure 2).

Wind speeds that meet the pedestrian wind safety criterion are predicted at most areas assessed at grade level. The criterion is expected to be exceeded at the southwest corner of the building (Location 18 in Figure 3), and on the sidewalks of Hurontario Street and Hillcrest Avenue (Locations 48 and 52 in Figure 3).

Note that, generally, the comfort and safety exceedances predicted at grade are considered borderline, i.e., 1 or 2 km/h above the comfort limit of 20 km/h, and 2 or 3 km/h above the safety limit of 90 km/h (Table 1).

To lower wind speeds in the outdoor charity space and the northwest corner of the building (Location 28), it is suggested to install windscreens/fence on the northwest side of the building (near Locations 8 and 28) to diffuse the energy of accelerating winds and provide calm wind zone for passive patron use in the summer. The windscreens should be at least 2m tall and no more than 30% open. The design team may also consider overhead features like trellises, canopies, umbrellas, etc. to diffuse the downwashing winds above the seating areas. Any use of landscaping will help lower the wind speeds locally in the space when trees are in full foliage.

To improve wind conditions around the southwest corner of the building (Location 18) and on the sidewalks of Hurontario Street (Locations 48 and 49), the following measures can be considered:

- Windscreens within the property boundary.
- Coniferous or marcescent landscaping near the southwest corner of the building.
- Massing changes, such as chamfering or incorporating a re-entrant corner design on the southwest corner of the building.
- Repositioning balconies on the lower southwest part of the tower, near the podium level.

Examples of the proposed wind control solutions for the above-discussed windy areas are shown in Image 6. RWDI understands that improvements to the building design will be made in subsequent stages of the project.

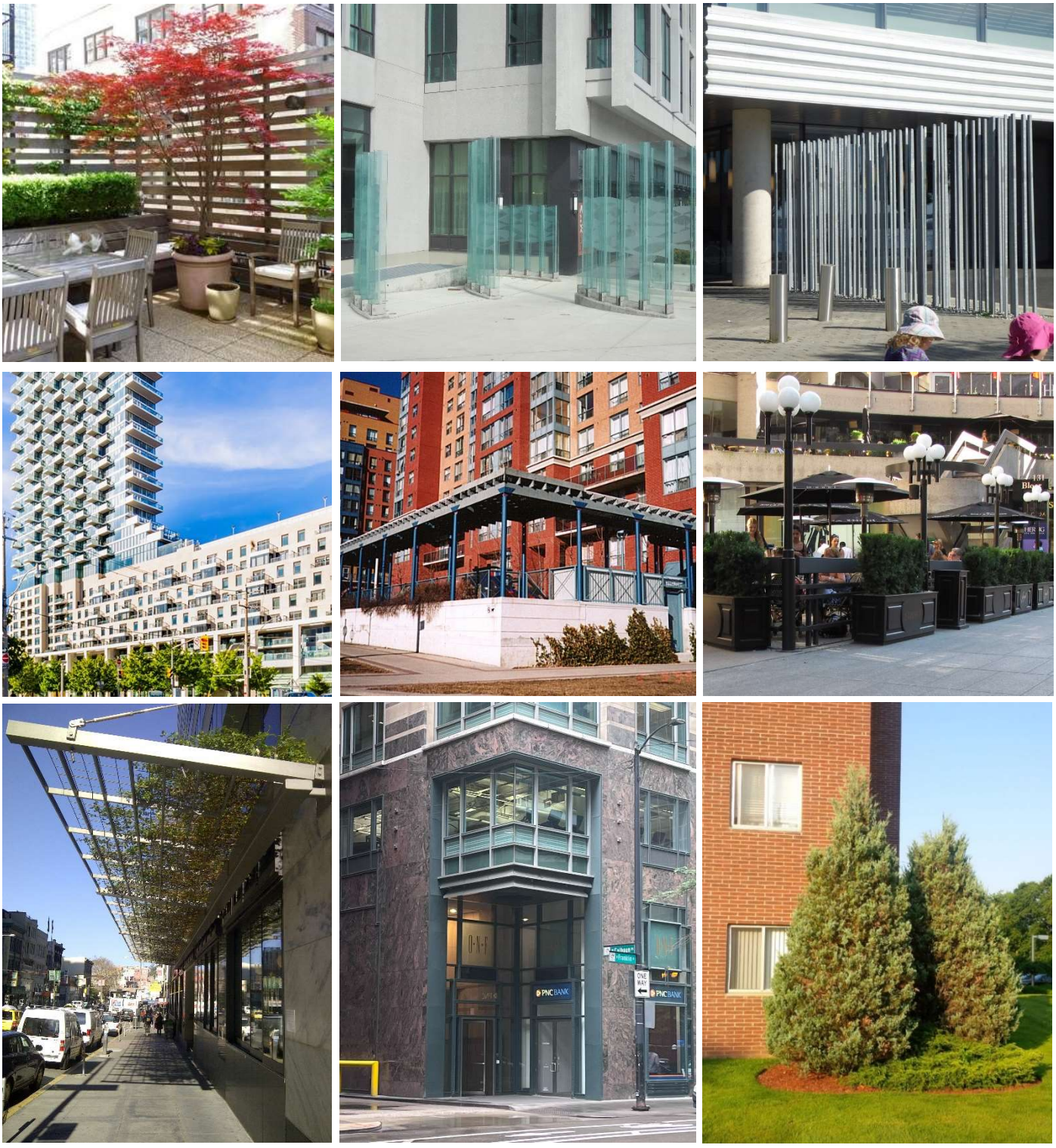


Image 6: Examples of Wind Control Options Applicable for Grade Level

3.2 Above-Grade Levels (Locations 68 through 87)

It is generally desirable for wind conditions on terraces intended for prolonged periods of passive activities like seating and dining to be comfortable for sitting more than 80% of the time in the summer. During the winter, the area would not be used frequently, and increased wind activity would be considered appropriate.

In the summer, wind conditions appropriate for sitting are expected in most areas on the Level 3 terraces (Figure 1). Slightly higher wind speeds comfortable for standing are expected to occur on the north and central parts of the Level 3 east terrace (Locations 68 – 70 in Figure 1), on the north part of the Level 3 west terrace (Location 79 in Figure 1), and throughout the Level 7 terraces. Elevated wind speeds conducive to walking are predicted on the south part of the Level 7 west terrace (Location 85 in Figure 1).

In the winter, higher wind speeds and uncomfortable wind conditions are expected at the east and west terraces, but this may not be of concern as the areas would not be used frequently during the colder months (Figure 2).

The pedestrian wind safety criterion is expected to be met at all above-grade areas, except for Location 85 on the Level 7 west terrace (Figure 3).

While conditions comfortable for standing are generally appropriate for a terrace, the wind speeds may be slightly higher than desired if prolonged passive activities are planned such as seating, dining, etc. To achieve lower wind speeds in the outdoor amenity terraces, the design team is encouraged to consider taller guardrails along the perimeters of the Levels 3 and 7 terraces. Landscaping/hardscaping features in the form of planters, screens and trellises that may be placed strategically around designated seating areas are also recommended to create localized low-wind zones.

Examples are shown in Image 7 for reference.

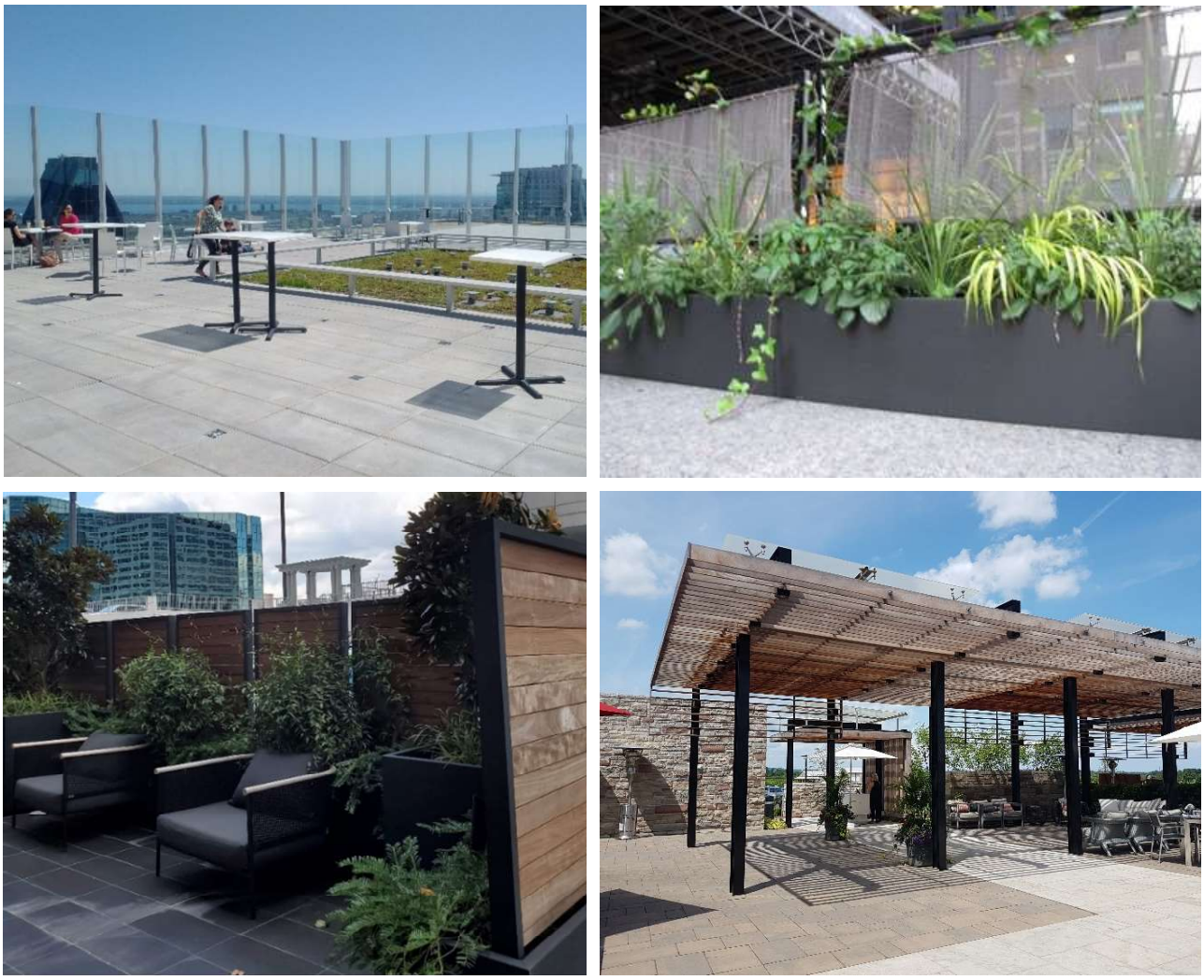


Image 7: Examples of Wind Control Options Applicable to the Outdoor Amenity Spaces

4 STATEMENT OF LIMITATIONS

4.1 Limitations

This report was prepared by Rowan Williams Davies and Irwin Inc. ("RWDI") for Clearbrook Development Ltd. ("Client"). The findings and conclusions presented in this report have been prepared for the Client and are specific to the project described herein ("Project"). The conclusions and recommendations contained in this report are based on the information available to RWDI when this report was prepared.

The conclusions and recommendations contained in this report have also been made for the specific purpose(s) set out herein. Should the Client or any other third party utilize the report and/or implement the conclusions and recommendations contained therein for any other purpose or project without the involvement of RWDI, the Client or such third party assumes any and all risk of any and all consequences arising from such use and RWDI accepts no responsibility for any liability, loss, or damage of any kind suffered by Client or any other third party arising therefrom.

Finally, it is imperative that the Client and/or any party relying on the conclusions and recommendations in this report carefully review the stated assumptions contained herein and understand the different factors which may impact the conclusions and recommendations provided.

4.2 Design Assumptions

RWDI confirms that the pedestrian wind assessment (the "**Assessment**") discussed herein was performed by RWDI in accordance with generally accepted professional standards at the time when the Assessment was performed and in the location of the Project. No other representations, warranties, or guarantees are made with respect to the accuracy or completeness of the information, findings, recommendations, or conclusions contained in this Report. This report is not a legal opinion regarding compliance with applicable laws.

The findings and recommendations set out in this report are based on the following information disclosed to RWDI by Sweeny & Co. Architects Inc. **("Project Data").**

File Name	File Type	Date Received (dd/mm/yyyy)
2106_3115 Hurontario_AZ101 - Site Plan	PDF	20/01/2025
25-33 Hillcrest Ave Heights	PDF	20/01/2025
3085 Hurontario Site Plan	PDF	20/01/2025
2024-01-29_3115 Hurontario_Wind Study Model	SKP	29/01/2025
2025-01-29_3115 Hurontario_Wind Study	DWG	29/01/2025

The recommendations and conclusions are based on the assumption that the Project Data and Climate Data are accurate and complete. RWDI assumes no responsibility for any inaccuracy or deficiency in information it has received from others. In addition, the recommendations and conclusions in this report are partially based on historical data and can be affected by a number of external factors, including but not limited to Project design, quality of materials and construction, site conditions, meteorological events, and climate change. As such, the conclusions and recommendations contained in this report do not list every possible outcome.

The opinions in this report can only be relied upon to the extent that the Project Data and Project Specific Conditions have not changed. Any change in the Project Data or Project Specific Conditions not reflected in this report can impact and/or alter the recommendations and conclusions in this report. Therefore, it is incumbent upon the Client and/or any other third party reviewing the recommendations and conclusions in this report to contact RWDI in the event of any change in the Project Data and Project Specific Conditions in order to determine whether any such change(s) may impact the assumptions upon which the recommendations and conclusions were made.

5 REFERENCES

1. ASCE Task Committee on Outdoor Human Comfort (2004). *Outdoor Human Comfort and Its Assessment*, 68 pages, American Society of Civil Engineers, Reston, Virginia, USA.
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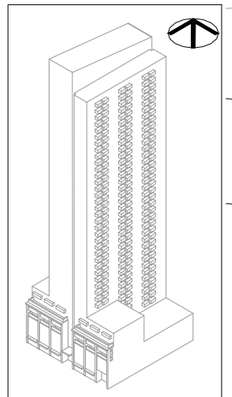
FIGURES



Isometric View of Building

Amenity Terrace Levels

LEGEND:

COMFORT CATEGORIES:

- Sitting
- Standing
- Walking
- Uncomfortable

- Grade Level Sensor
- Amenity Terrace Sensor
- Building Above Removed for Clarity
- Main Entrance Location

0 20 40m

Pedestrian Wind Comfort Conditions

Proposed + Future

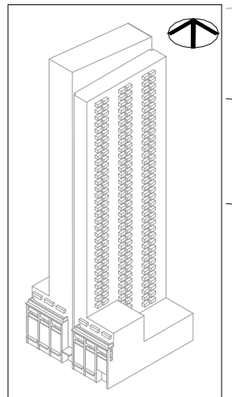
Summer (May to October, 6:00 to 23:00)

3115 Hurontario Street - Mississauga, ON

Project North True North

Project #2406897

Drawn by: ALJM	Figure: 1
Approx. Scale:	1:1000
Date Revised:	Feb. 20, 2025



Isometric View of Building

Amenity Terrace Levels

LEGEND:

COMFORT CATEGORIES:

- Sitting
- Standing
- Walking
- Uncomfortable

- Grade Level Sensor
- Amenity Terrace Sensor
- Building Above Removed for Clarity
- Main Entrance Location

0 20 40m

Pedestrian Wind Comfort Conditions

Proposed + Future

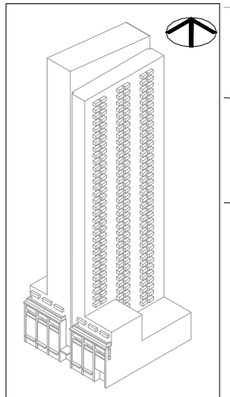
Winter (November to April, 6:00 to 23:00)

3115 Hurontario Street - Mississauga, ON

Project North True North

Project #2406897

Drawn by: ALJM	Figure: 2
Approx. Scale:	1:1000
Date Revised:	Feb. 20, 2025



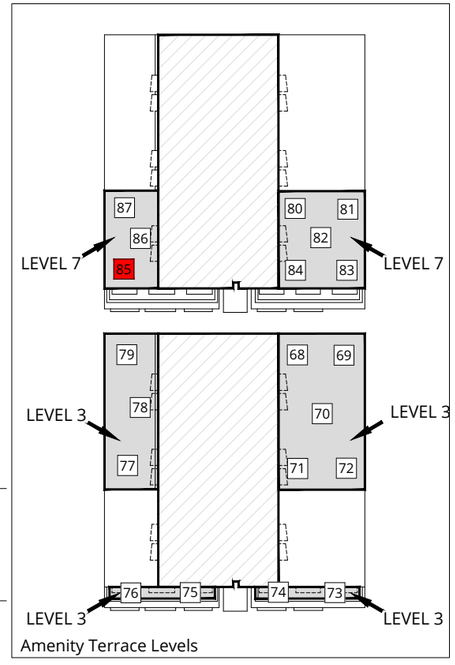
Isometric View of Building

KIRWIN AVENUE

FUTURE BUILDING

HURONTARIO STREET

HILLCREST AVENUE



Amenity Terrace Levels

LEGEND:

SAFETY CATEGORIES:

Acceptable

Exceeded

Grade Level Sensor

Amenity Terrace Sensor

Building Above Removed for Clarity

Main Entrance Location

0 20 40m

Pedestrian Wind Safety Conditions

Proposed + Future

Annual (January to December, 0:00 to 23:00)

3115 Hurontario Street - Mississauga, ON

Project North True North

Project #2406897

Drawn by: ALJM	Figure: 3
Approx. Scale:	1:1000
Date Revised:	Feb. 20, 2025

TABLES

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (km/h)	Rating	Speed (km/h)	Rating	Speed (km/h)	Rating
1	Proposed + Future	9	Sitting	11	Standing	54	Pass
2	Proposed + Future	6	Sitting	7	Sitting	33	Pass
3	Proposed + Future	14	Standing	16	Walking	76	Pass
4	Proposed + Future	11	Standing	12	Standing	50	Pass
5	Proposed + Future	14	Standing	17	Walking	84	Pass
6	Proposed + Future	6	Sitting	7	Sitting	29	Pass
7	Proposed + Future	10	Sitting	11	Standing	52	Pass
8	Proposed + Future	17	Walking	20	Walking	81	Pass
9	Proposed + Future	15	Standing	17	Walking	77	Pass
10	Proposed + Future	16	Walking	18	Walking	79	Pass
11	Proposed + Future	14	Standing	16	Walking	67	Pass
12	Proposed + Future	17	Walking	19	Walking	79	Pass
13	Proposed + Future	14	Standing	16	Walking	76	Pass
14	Proposed + Future	14	Standing	17	Walking	70	Pass
15	Proposed + Future	11	Standing	13	Standing	55	Pass
16	Proposed + Future	14	Standing	16	Walking	76	Pass
17	Proposed + Future	14	Standing	17	Walking	75	Pass
18	Proposed + Future	19	Walking	22	Uncomfortable	92	Exceeded
19	Proposed + Future	17	Walking	20	Walking	74	Pass
20	Proposed + Future	17	Walking	19	Walking	75	Pass
21	Proposed + Future	12	Standing	13	Standing	57	Pass
22	Proposed + Future	15	Standing	17	Walking	76	Pass
23	Proposed + Future	13	Standing	15	Standing	64	Pass
24	Proposed + Future	13	Standing	15	Standing	74	Pass
25	Proposed + Future	13	Standing	16	Walking	67	Pass
26	Proposed + Future	14	Standing	16	Walking	72	Pass
27	Proposed + Future	15	Standing	17	Walking	75	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (km/h)	Rating	Speed (km/h)	Rating	Speed (km/h)	Rating
28	Proposed + Future	21	Uncomfortable	24	Uncomfortable	81	Pass
29	Proposed + Future	17	Walking	20	Walking	84	Pass
30	Proposed + Future	18	Walking	20	Walking	82	Pass
31	Proposed + Future	16	Walking	18	Walking	77	Pass
32	Proposed + Future	16	Walking	18	Walking	72	Pass
33	Proposed + Future	16	Walking	18	Walking	81	Pass
34	Proposed + Future	11	Standing	12	Standing	53	Pass
35	Proposed + Future	16	Walking	18	Walking	70	Pass
36	Proposed + Future	15	Standing	17	Walking	79	Pass
37	Proposed + Future	15	Standing	16	Walking	76	Pass
38	Proposed + Future	14	Standing	17	Walking	76	Pass
39	Proposed + Future	17	Walking	19	Walking	79	Pass
40	Proposed + Future	12	Standing	15	Standing	84	Pass
41	Proposed + Future	16	Walking	19	Walking	83	Pass
42	Proposed + Future	15	Standing	16	Walking	68	Pass
43	Proposed + Future	18	Walking	21	Uncomfortable	87	Pass
44	Proposed + Future	13	Standing	14	Standing	75	Pass
45	Proposed + Future	13	Standing	15	Standing	64	Pass
46	Proposed + Future	15	Standing	18	Walking	78	Pass
47	Proposed + Future	16	Walking	18	Walking	80	Pass
48	Proposed + Future	18	Walking	21	Uncomfortable	92	Exceeded
49	Proposed + Future	18	Walking	21	Uncomfortable	82	Pass
50	Proposed + Future	16	Walking	19	Walking	78	Pass
51	Proposed + Future	16	Walking	19	Walking	84	Pass
52	Proposed + Future	15	Standing	18	Walking	93	Exceeded
53	Proposed + Future	18	Walking	20	Walking	73	Pass
54	Proposed + Future	17	Walking	19	Walking	82	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (km/h)	Rating	Speed (km/h)	Rating	Speed (km/h)	Rating
55	Proposed + Future	15	Standing	17	Walking	73	Pass
56	Proposed + Future	16	Walking	18	Walking	72	Pass
57	Proposed + Future	13	Standing	14	Standing	54	Pass
58	Proposed + Future	12	Standing	15	Standing	71	Pass
59	Proposed + Future	14	Standing	16	Walking	74	Pass
60	Proposed + Future	14	Standing	16	Walking	76	Pass
61	Proposed + Future	13	Standing	16	Walking	71	Pass
62	Proposed + Future	14	Standing	17	Walking	82	Pass
63	Proposed + Future	13	Standing	16	Walking	75	Pass
64	Proposed + Future	13	Standing	16	Walking	70	Pass
65	Proposed + Future	14	Standing	16	Walking	66	Pass
66	Proposed + Future	17	Walking	19	Walking	73	Pass
67	Proposed + Future	17	Walking	20	Walking	81	Pass
68	Proposed + Future	12	Standing	13	Standing	63	Pass
69	Proposed + Future	15	Standing	17	Walking	78	Pass
70	Proposed + Future	12	Standing	14	Standing	66	Pass
71	Proposed + Future	10	Sitting	11	Standing	52	Pass
72	Proposed + Future	10	Sitting	11	Standing	62	Pass
73	Proposed + Future	7	Sitting	8	Sitting	38	Pass
74	Proposed + Future	4	Sitting	4	Sitting	17	Pass
75	Proposed + Future	4	Sitting	5	Sitting	22	Pass
76	Proposed + Future	8	Sitting	9	Sitting	55	Pass
77	Proposed + Future	8	Sitting	10	Sitting	39	Pass
78	Proposed + Future	9	Sitting	11	Standing	46	Pass
79	Proposed + Future	14	Standing	16	Walking	72	Pass
80	Proposed + Future	14	Standing	16	Walking	78	Pass
81	Proposed + Future	15	Standing	17	Walking	80	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (km/h)	Rating	Speed (km/h)	Rating	Speed (km/h)	Rating
82	Proposed + Future	13	Standing	15	Standing	68	Pass
83	Proposed + Future	13	Standing	15	Standing	68	Pass
84	Proposed + Future	12	Standing	15	Standing	78	Pass
85	Proposed + Future	20	Walking	24	Uncomfortable	93	Exceeded
86	Proposed + Future	15	Standing	18	Walking	81	Pass
87	Proposed + Future	13	Standing	16	Walking	83	Pass

Season	Months	Hours
Summer	May - October	6:00 - 23:00 for comfort
Winter	November - April	6:00 - 23:00 for comfort
Annual	January - December	0:00 - 23:00 for safety
Configurations		
Proposed + Future	Project with Existing and Future Buildings	

Comfort Speed (km/h)	
(20% Seasonal Exceedance)	
≤ 10	Sitting
11 - 15	Standing
16 - 20	Walking
> 20	Uncomfortable

Safety Speed (km/h)	
(0.1% Annual Exceedance)	
≤ 90	Pass
> 90	Exceeded