

GRADIENTWIND

ENGINEERS & SCIENTISTS

January 29, 2025

1047 Richmond Nominee Inc.
77 King Street W, Suite 3410
Toronto, ON
M5K 2A1

Re: Addendum to Pedestrian Level Wind Study
1047 Richmond Road, Ottawa, ON
GW File No.: 21-416-WTPLW-R2–Addendum

Gradient Wind Engineering Inc. previously completed a detailed pedestrian level wind study for the proposed mixed-use development located at 1047 Richmond Road in Ottawa, Ontario. This letter provides a summary of relevant architectural and landscaping changes to the site 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 #21-416-WTPLW-R2, dated October 3, 2023.

Upon review of the updated drawings and landscaping by rla architecture and Studio tla provided in January 2025, the following significant changes to the design were noted:

1. Tower A has decreased from 40 storeys to 36 storeys and the tower has shifted southwest to become partially flush with the podium façade.
2. The Tower A and B podia have decreased from 6 storeys each to a range of 1-4 storeys, with the shortest along the north side. Additionally, the space between the podia along the north elevation has significantly increased.
3. A complete landscaping plan has been developed with specific plantings scheduled.

Other minor variations in architectural drawings are not expected to significantly influence the results and recommendations of the original wind study. Figures 3A-3D following the main text represent the

expected future pedestrian comfort based on the wind tunnel test results of the original study. The effects of the noted significant changes above are as follows:

1. A decrease in tower height is generally associated with a decrease in windspeeds at grade and lower terraces, however, considering the relatively minor reduction, wind comfort categories are generally expected to remain similar to those originally recorded. With the shift of the tower to the southwest and where the tower no longer steps back from the podium, windspeeds are expected to somewhat increase immediately adjacent to the study building façade (Sensors 29-32) with the unbuffered downwash of prominent westerly winds towards grade and acceleration around the building corner. This effect is expected to be significantly reduced along the well sheltered south elevation (Sensors 27 & 28). Overall, the walkway along the noted podium façade is still expected to be suitable for walking or better on a seasonal basis, which is acceptable.
2. The reduction in podia height and greater separation between the east and west podia along the north side is expected to significantly reduce the capture and channeling of salient westerly winds between the buildings. Wind comfort is expected to improve over the central drop-off, outdoor amenity, and P.O.P.S., with many previously uncomfortable conditions eliminated during the colder seasons.
3. Regarding the landscaping plan, the density and species of plantings proposed between the Tower A and B podia, and along the north elevation of the driveway, are expected to effectively buffer the prominent northerly winds channelled between the buildings, particularly during the warmer seasons, and generally mitigate the previously uncomfortable conditions observed during the colder seasons. Additionally, the noted amenity areas are well sheltered and generally expected to be comfortable for sitting throughout the warmer months.

The coniferous shrubs and deciduous trees proposed to the west along New Orchard Avenue North are expected to buffer northwesterly wind flows traveling along the roadway and into the proposed park, which is generally expected to alleviate uncomfortable conditions along the sidewalk. Within the park, standing or better conditions are generally expected during the warmer months, with additional buffering to be expected from any future amenity or landscaped features within the park plan.

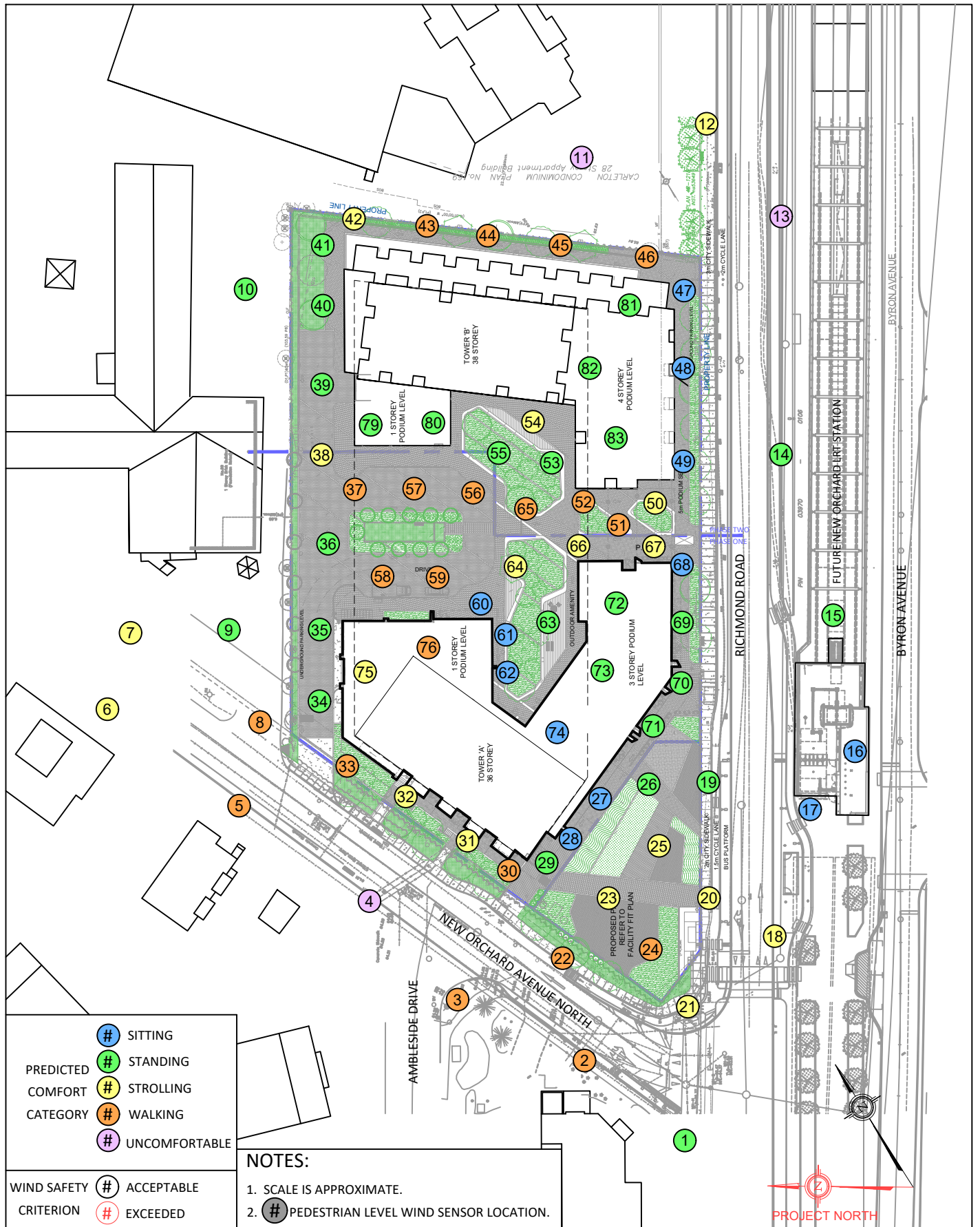
Please advise the undersigned of any questions or concerns.

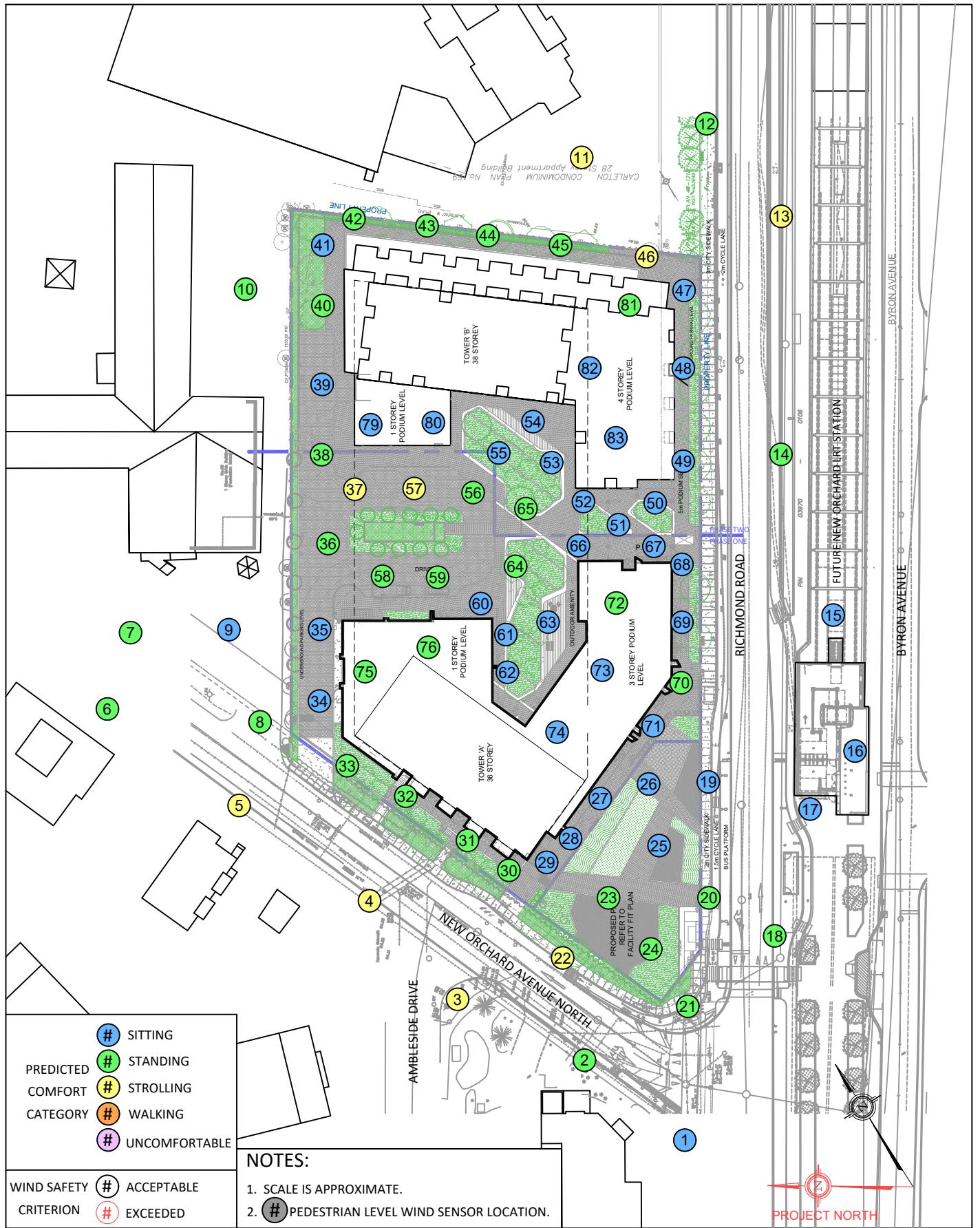
Sincerely,

Gradient Wind Engineering Inc.

A handwritten signature in dark ink, appearing to read "Nick Petersen".

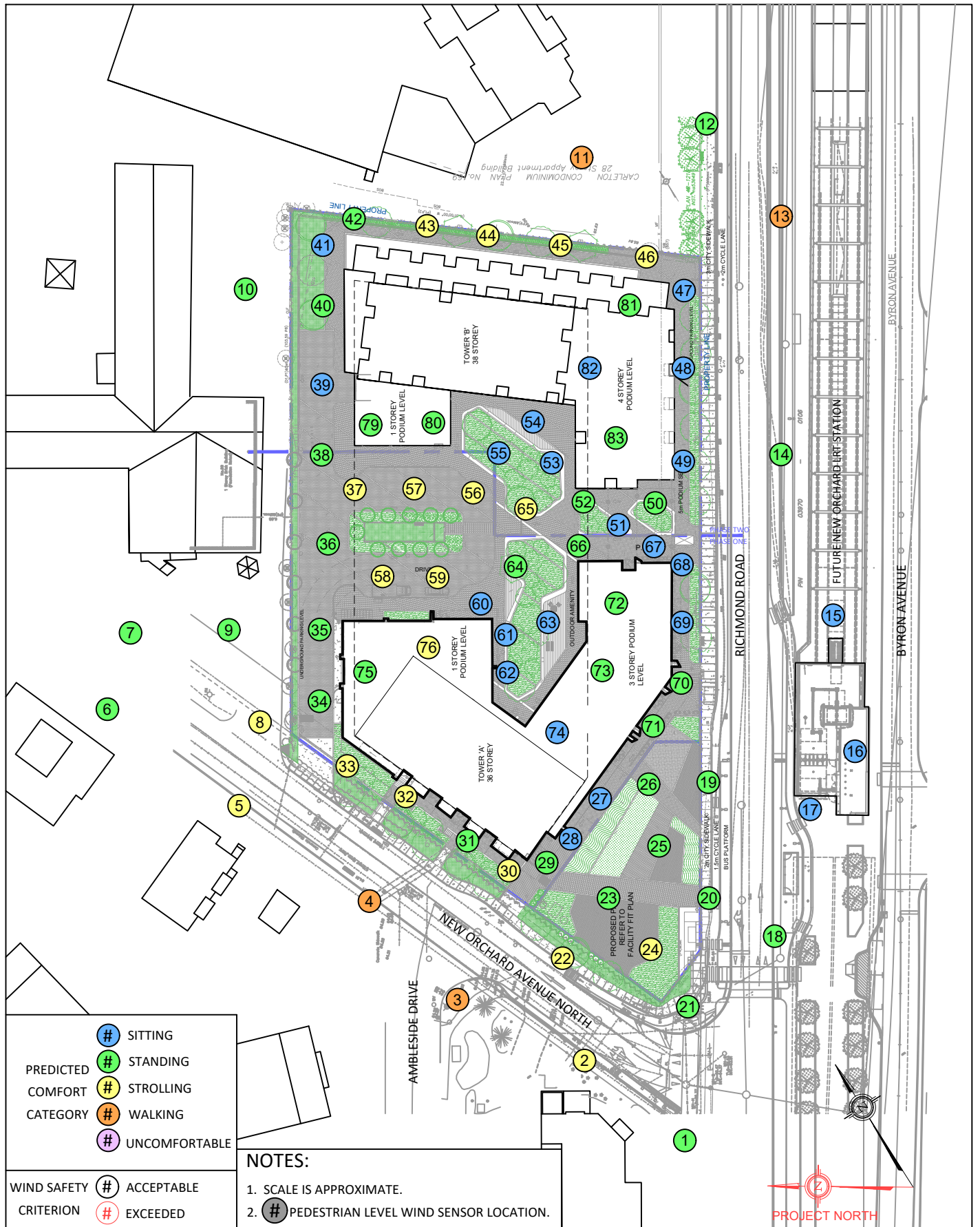
Nick Petersen, P.Eng.,
Wind Engineer





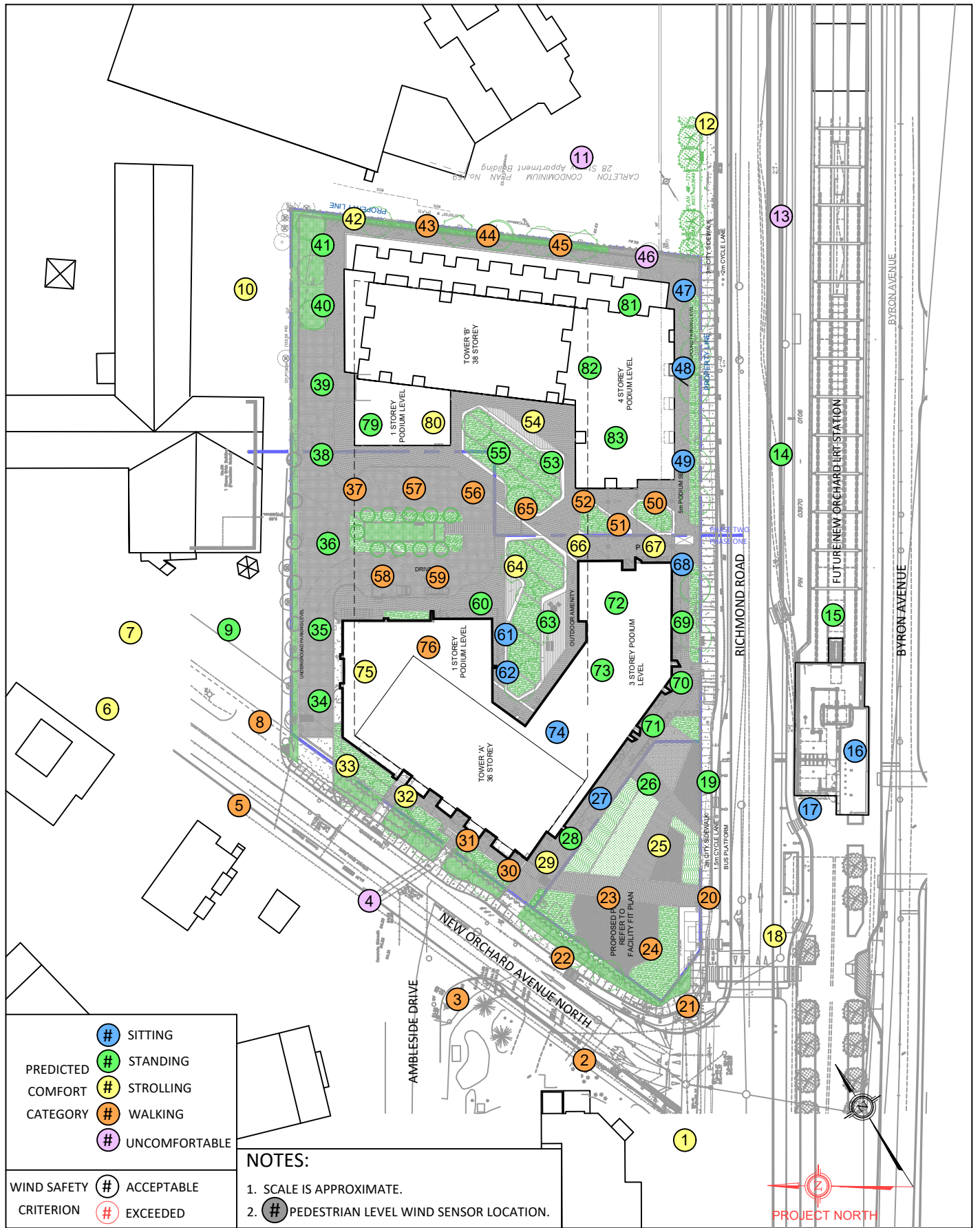
GRADIENTWIND
ENGINEERS & SCIENTISTS

127 WALGREEN ROAD, OTTAWA, ON
613 836 0934 • GRADIENTWIND.COM



GRADIENTWIND
ENGINEERS & SCIENTISTS

127 WALGREEN ROAD, OTTAWA, ON
613 836 0934 • GRADIENTWIND.COM



GRADIENTWIND
ENGINEERS & SCIENTISTS

127 WALGREEN ROAD, OTTAWA, ON
613 836 0934 • GRADIENTWIND.COM

PROJECT 1047 RICHMOND ROAD, OTTAWA
PEDESTRIAN LEVEL WIND STUDY

SCALE 1:1000 (APPROX.)

DATE JANUARY 29, 2025

DRAWING NO. GW21-416-PLW-2023-3D

DRAWN BY K.A.

DESCRIPTION

FIGURE 3D: WINTER
EXPECTED FUTURE PEDESTRIAN
COMFORT BASED ON PREVIOUS SITE
CONFIGURATION WIND TUNNEL TEST