## GRADIENTWIND

April 3, 2020

Chmiel Architects Incorporated Attn: Richard Chmiel 109 Bank Street, Suite 200 Ottawa, ON K1P 5N5

Dear Mr. Chmiel:

Re: Addendum to Traffic Noise Study 433-435 Churchill Avenue Gradient Wind File # 19-042-Traffic Noise Addendum R1

Gradient Wind Engineering Inc. (Gradient Wind) was retained by Chmiel Architects Incorporated to undertake a roadway traffic noise assessment for a proposed residential development located at 433-435 Churchill Avenue located in Ottawa, Ontario. This addendum letter is supplemental to our roadway traffic noise report (ref. Gradient Wind report #19-042 – Traffic Noise, dated April 5, 2019), and addendum letter (ref. Gradient Wind report #19-042 – Traffic Noise Addendum, dated April 26, 2019) to address the update to the site plan drawings as well as comments issued by the City of Ottawa.

Gradient Wind received updated site plan drawings in March of 2020. A review of these drawings depicts a reduction of the building height to 4-storeys along Highcroft Avenue with a terrace. The middle section and western section will rise 5-storeys and 6-storeys, respectively. The minor reduction in building height will have a negligible effect on the expected noise levels at Plane of Window (POW) Receptors 3 and 4. Noise levels at the Level 5 terrace to the east are expected to fall below the OLA noise criteria of 55 dBA as roadway noise from Churchill Avenue and Byron Avenue will be blocked due to the building massing and standard 1.2 meter perimeter guards.

Furthermore, the rooftop terrace has been relocated from the 6-storey section to the 5-storey section. As a result, noise levels are expected remain below the 55 dBA criteria as the western building section will provide additional blockage of Churchill Avenue. In addition, the Level 6 rooftop terrace at the west elevation was reduced to 2.8 meters and is no longer identified as a noise sensitive area as per ENCG guidelines.

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The building modifications summarized above do not indicate significant changes to the building massing that would require an update the initial noise study. Therefore, results and conclusions of our report remain unchanged.

Following submission of a roadway traffic noise study to satisfy City of Ottawa site plan control submission requirements, the City has also requested a stationary noise study be completed for the site. At this time the mechanical equipment planned for the development is unknown and therefore would be premature to proceed with any type of analysis. Furthermore, it is not known whether the equipment would be located in a rooftop mechanical penthouse or in the basement. All equipment on site will need to be designed to comply with City of Ottawa and Ministry of Environment, Conservation and Parks sound level limits and by-laws.

Stationary noise sources associated with the development could include rooftop air handling units, cooling towers or dry coolers, and emergency generators. Noise from these sources however can be controlled to acceptable limits established by MECP by judicious selection of the equipment, locating the equipment on the high roof away from nearby low-rise residential receptors, and installing silencers or noise screens where necessary. It is within Gradient Wind's scope of work to complete a stationary noise report once the mechanical design of the building has sufficiently advanced.

This concludes our response and review of the design changes and comments for 433-435 Churchill Avenue in Ottawa, Ontario. Please advise the undersigned of any questions or concerns.

Sincerely,

## Gradient Wind Engineering Inc.

Giuseppe Garro, MASc. Junior Environmental Scientist

Gradient Wind File #19-042



Joshua Foster, P.Eng. Principal

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