

# GRADIENTWIND

ENGINEERS & SCIENTISTS

November 11, 2025

**Parsons**

1223 Michael Street North, Suite 100  
Ottawa, ON K1J 7T2

Attn: Pamela Whyte, MCIP, RPP  
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Re: Noise Opinion Letter  
550 Wanaki Road, ON  
Gradient Wind File #25-202- Opinion Letter

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## 1. INTRODUCTION AND TERMS OF REFERENCE

Gradient Wind Engineering Inc. (Gradient Wind) was retained by Parsons on behalf of Canada Lands Company CLC Limited to provide environmental noise engineering services for a proposed school to be located on a portion of 550 Wanaki Road in Ottawa, ON. This opinion letter summarizes the potential environmental noise impacts from the adjacent National Research Council (NRC) of Canada's campus at 1200 Montreal Road onto the proposed school development. This letter is a high-level review of various sources of information and is intended to support concurrent Official Plan Amendment (OPA) and Zoning By-Law Amendment (ZBLA) applications by the client. This review considers the concept plan prepared by Écoles Catholiques Centre- Est, dated July 21, 2025, with further details to be provided as part of a future application for Site Plan Control. Our opinion is based upon a review of the following noise studies which have been undertaken by NRC and their consultants:

- Analysis and Recommendations for Noise Sources Associated with the M-10 Complex, prepared by Hugh Williamson Associates Inc., dated December 9, 2008
- A Feasibility Study of Noise Control for the M-46 Wind Tunnel, prepared by Hugh Williamson Associates Inc. dated May 13, 2009
- Noise Assessment of Rothwell Heights During Operation of the M-10 Complex October 2008, prepared by Hugh Williamson Associates Inc., dated January 29, 2010

- Analysis of Community Noise During a Shutdown of the Co-Generation Plant at M-6, prepared by Hugh Williamson Associates Inc., dated February 26, 2010
- Memo Re: NRC C1 Blow-off Silencer Noise Assessment Final Redesigned Silencer, prepared by RWDI, dated March 24, 2010
- Memo Re: NRC M10 Complex Test Cell 3 – Investigation of Noise Mitigation, prepared by RWDI, dated July 23, 2010
- Acoustical Assessment of the NRC Transformer Yard Montreal Road Campus, prepared by Hugh Williamson Associates Inc. dated March 31, 2011
- Presentation – National Research Council Campus Master Plan 99% Draft, prepared by the National Capital Commission, dated April 18, 2024.
- Raw Noise Monitoring Data from March 2011 to June 2024 provided by the NRC.

Additional documents considered:

- Environmental Noise Control Guidelines (ENCG) prepared by City of Ottawa, dated July 12, 2017
- Environmental Noise Guideline – Stationery and Transportation Sources – Approval and Planning (NPC-300), prepared by the Ontario Ministry of Environment and Climate Change, dated August 2013

## **2. PRIMARY NOISE SOURCES**

Upon review of the various literature the primary sources of noise on the NRC campus include the Co-generation plant and transformer yard near building M-6. The wind tunnel facility at building M-46, and the Test Cell facility at the M-10 complex. Figure 1 illustrates the site plan and surrounding noise sources. A series of noise abatement action plans were carried out on these facilities including adding silencers and barriers around various pieces of equipment. The previous noise studies have considered the possibility of future residential and other noise sensitive receptors at the former air base, now called Wateridge Village. NRC has targeted the NPC-300 exclusionary sound level limits along the western property line of 50 dBA during the daytime and 45 dBA during the night-time.

### **3. REVIEW OF MONITORING DATA**

The NRC has set up a long-term noise monitoring program around its campus. Noise monitoring started in March of 2011. Data from March 2011 to June 2024 was shared with Gradient Wind. 5 total monitoring stations are set up around the campus. The closest monitoring to the subject property at 550 Wanaki Road is SLM 5 located on the northeast corner of the roof of building M-32, see Figure 1. The M-32 building is a two -storey building with an approximate height of 10 m above the ground. The microphone is mounted 2.5 m above the roof. The noise monitor is located approximately halfway between the subject property and the M-46 wind tunnel and the M-10 complex. Noise levels measured at this location were found to be 55 dBA during the daytime and 50 dBA during the nighttime 99% of the time. The 1% exceedance is expected from extraneous sources, such as aircraft flyovers and thunderstorms, they are not considered statistically significant.

### **4. EXTRAPOLATION OF RESULTS.**

Noise levels at the property line can be simply extracted using the rule of thumb for a doubling of distance between a source and receiver the attenuation gained is 6 dBA. Therefore, the noise levels at the property line are expected to be 49 dBA during the daytime and 44 dBA during the nighttime at the property line. These expected noise levels are compliant with the ENCG and NPC-300 sound level limits at the property of the school. Additional attenuation is also likely to be provided by the screening effects of building M-32.

## 5. RECOMMENDATIONS AND CONCLUSIONS

Based on an initial review of literature and available sound data from NRC, noise impacts on the potential school property are expected to be minimal, therefore it is feasible to design and construct a school in accordance with the requirements of the ENCG and NPC-300.

This concludes our building acoustics assessment and report. Should you have any questions, or wish to discuss our findings further, please call us (613) 836-0934 or contact us by e-mail at [joshua.foster@gradientwind.com](mailto:joshua.foster@gradientwind.com). In the interim, we thank you for the opportunity to be of service.

Sincerely,

***Gradient Wind Engineering Inc.***



Joshua Foster, P.Eng.  
Lead Engineer

GW25-202 - Noise Opinion Letter

*Sergio Nunez Andres*

Sergio Nunez Andres  
Junior Environmental Scientist





PROJECT	550 WANAKI ROAD, OTTAWA NOISE ASSESSMENT	
SCALE	1:4000	DRAWING NO. GW25-202-1
DATE	NOVEMBER 11, 2025	DRAWN BY J.F.

DESCRIPTION
FIGURE 1: CONCEPTUAL SITE PLAN AND SURROUNDING CONTEXT