February 11, 2022

WeirFoulds LLP
66 Wellington Street West, Suite 4100
Toronto, ON M5K 1B7

Attn: Paul Chronis, Land Use Planner
PCHRONIS@weirfoulds.com

Dear Mr. Chronis:

Re: Peer-Review Cover Letter
1840 – 1850 Bloor Street East, Mississauga
Gradient Wind File No.: 21-355-Cover Letter

Gradient Wind Engineering Inc. (Gradient Wind) was retained by WeirFoulds LLP, on behalf of Wajax Limited, to provide professional acoustic engineering counselling with regard to the proposed residential development located at 1840 – 1850 Bloor Street East in Mississauga, Ontario. The proposed development is situated directly north of the Wajax Limited owned and operated facilities located at 3280 Wharton Way and 1865 Sharlyn Road in Mississauga, Ontario. It should be noted that these buildings have separate business operations and have their own Environmental Compliance Approval (ECA).

Gradient Wind conducted discussions with Wajax Limited, WeirFoulds LLP, as well as with Jade Acoustics Inc. who was retained by the proponent (1840-1850 Bloor East Ltd.) to conduct a transportation noise and stationary noise analysis for the proposed residential development.

Gradient Wind's services also included a detailed peer review of an environmental noise assessment and memoranda prepared by Jade Acoustics Inc. The findings of the peer review are attached to this letter.

Based on the findings of the detailed peer review, Gradient Wind has outlined a set of recommendations below:

- It is requested that Jade Acoustics Inc. conduct a revised transportation noise and stationary noise assessment incorporating the feedback summarized in the attached peer review letter.

- Should the revised noise assessment conclude that stationary noise impacts from the existing Wajax Limited facilities fall below NPC-300 Class 1 criteria, it should be documented that the facilities are in compliance with NPC-300 guidelines and no acoustical mitigation measures are required.

- Conversely, should the revised noise assessment conclude that stationary noise impacts from the existing Wajax Limited facilities exceed NPC-300 Class 1 criteria, acoustical mitigation measures should be investigated, such as the pursuit of obtaining a Class 4 designation.

  Wajax Limited has expressed their opposition to the construction of a wing wall(s) on their properties as a means to mitigate noise. Wing walls will negatively impact truck movement operations, as well as pose a safety concern for truck and equipment operators. As per NPC-300 Section B11, it is Gradient Wind's opinion that wing walls should not be installed on the property.

- In the event that a solution which satisfies all stakeholders and is technically, economically, and administratively feasible cannot be found, a Class 4 designation should be sought by the proponent. Based on council approval, the Class 4 designation would allow for higher sound levels to be considered.

This concludes our cover letter to supplement our detailed peer review of the environmental noise assessment performed by Jade Acoustics Inc., for the proposed residential development at 1840 – 1850 Bloor Street East in Mississauga, Ontario.

Sincerely,

Gradient Wind Engineering Inc.

Giuseppe Garro, MASc.
Junior Environmental Scientist

Joshua Foster, P.Eng
Lead Engineer

Gradient Wind File #21-355-Cover Letter

February 11, 2022

WeirFoulds LLP
66 Wellington Street West, Suite 4100
Toronto, ON M5K 1B7

Attn: Paul Chronis, Land Use Planner
PCHRONIS@weirfoulds.com

Dear Mr. Chronis:

Re: Peer-Review of Environmental Noise Assessment
1840 – 1850 Bloor Street East, Mississauga
Gradient Wind File No.: 21-355-Operation Summary Letter

1. INTRODUCTION

Gradient Wind Engineering Inc. (Gradient Wind) was retained by WeirFoulds LLP, on behalf of Wajax Limited, to perform a peer review of an environmental noise assessment prepared by Jade Acoustics Inc. for the proposed residential development located at 1840 – 1850 Bloor Street East in Mississauga, Ontario. Gradient Wind's review is based on the following documents:

- "Preliminary Environmental Noise Report" prepared by Jade Acoustics Inc., dated March 11, 2020.
- Architectural drawing set prepared by IBI Group Architects, dated January 14, 2020.
- "Planning and Urban Design Rationale" report prepared by Bousfields Inc., dated March 2020.
- "Memorandum" prepared by Jade Acoustics Inc., dated December 2, 2021.

2. TERMS OF REFERENCE

The environmental noise assessment was conducted by Jade Acoustics Inc. for the proposed residential development located at 1840 – 1850 Bloor Street East in Mississauga, Ontario. The proposed development includes two residential towers connected by a shared podium. The primary sources of environmental noise include roadway traffic along Bloor Street East to the north, as well as stationary noise associated with the existing industrial buildings to the south located at 3280 Wharton Way and 1865 Sharlyn Road. The industrial buildings are currently operated by Wajax Limited which is an industrial/heavy equipment

and parts supplier. The buildings have separate business operations and have their own Environmental Compliance Approval (ECA).

3. PEER REVIEW COMMENTS

Below is a summary of the peer review conducted by Gradient Wind. It should be noted the Preliminary Environmental Noise Report precedes the Memorandum document. The memorandum contains updated acoustic modelling parameters collected from a site visit to the Wajax facilities, performed by Jade Acoustics on December 10, 2020. As such, comments relating to the preliminary report do not cover technical modelling parameters in detail. A detailed technical review of the latest modelling parameters is discussed in Section 3.2.

3.1 Preliminary Environmental Noise Report Comments

Regarding the Preliminary Environmental Noise Report, dated March 11, 2020, Gradient Wind has the following comments:

Summary

1. Page 1, paragraph 6 – It should be clarified that the options are to address existing stationary sources of noise to avoid confusion with any proposed stationary noise sources associated with the proposed development.

2. Page 1, paragraph 8 – Based on correspondence with the City of Mississauga, it is our understanding the City has dismissed the possibility of a Class 4 designation. It is Gradient Wind's professional opinion that a Class 4 designation serves as a useful tool for proposed developments and should not be dismissed as a viable solution.

   A Class 4 designation is typically reserved for cases with extenuating circumstances that make it unfeasible to mitigate existing stationary noise levels at or below Class 1 criteria. A Class 4 classification is primarily intended for a proposed noise sensitive development in proximity to existing, lawfully established stationary source(s), much like the current situation between Wajax Limited and 1840 – 1850 Bloor Street East.

Gradient Wind agrees that efforts should be made to find a technically, economically, and administratively feasible solution that meets the Class 1 criteria (specific to this development) and satisfies all stakeholders involved. However, if this cannot be achieved, a Class 4 designation should be considered and reviewed. Gradient Wind has first-hand experience regarding the Class 4 designation process for a proposed residential development in Kingston, Ontario. This designation was successfully granted by the City of Kingston after a formal review process and approval by council.

3. Page 1, paragraph 9 – A feasible stationary noise mitigation strategy should be implemented into the development design that would meet the appropriate stationary noise level criteria. As per NPC-300 Section C8.2, "*It is not acceptable to use warning clauses in place of physical noise control measures to identify an excess over the MOE sound level limits. Warning clause (Type E) for stationary sources may identify a potential concern due to the proximity of the facility but it is not acceptable to justify exceeding the sound level limits*".

Section 1: Introduction

4. Page 2, paragraph 2 – In this section, as well as throughout the report, the assessment is identified as a "preliminary" report. NPC-300 outlines that noise assessments are to use appropriate labelling such as "feasibility" or "detailed" when classifying the report type. Furthermore, it is assumed that the report was prepared to satisfy the conditions of a noise feasibility report, however it includes specific mitigation features that would satisfy the conditions of a detailed noise assessment. Please clarify the objective of the report as well as the appropriate labelling.

5. Page 2, paragraph 4 – Gradient Wind agrees that the proposed development is outside the NEF/NEP noise contour associated with the Toronto Pearson International Airport. Therefore, aircraft noise impacts are not anticipated.

Section 3: Environmental Noise Criteria

6. Page 4, paragraph 3 – The stated nighttime noise criteria should be modified. According to NPC-300 Section C7.1.2, "*If the sound level in the plane of a bedroom or living/dining room window is greater than 50 dBA and less* ***than or equal to 60 dBA****, the dwelling should be designed with a provision for the installation of central air conditioning in the future, at the occupant's discretion*

If the nighttime sound level in the plane of a bedroom or living/dining room window is greater than 60 dBA, installation of central air conditioning should be implemented".

7. Page 5, paragraph 8 – The latest NPC-300 document was published in August 2013 and should not be considered a "recently" published article as it has been in effect for 8 years. This is not a technical noise item but should be addressed.

8. Page 5, paragraph 9 – The NPC-207 Stationary noise vibration criteria has been mentioned; however, no further information has been presented nor a conclusion indicating if vibration levels fall above or below the criteria. Additional information should be included, or this section be removed if considered irrelevant.

9. Page 6, paragraph 1 – Gradient Wind concurs that back-up beepers for safety devices are not considered stationary noise sources, as per NPC-300 guidelines.

10. Page 6, paragraph 4 – Gradient Wind concurs with the fact that noise control methods should be implemented at the source if noise levels exceed the criteria. In addition, NPC-300 Section B11 indicates, "*Where a site in proximity to a stationary source is in the process of being developed or redeveloped for noise sensitive land uses (such as residential), it is considered the responsibility of the proponent/developer of the noise sensitive land use to ensure compliance with the applicable sound level limits and for this responsibility to be reflected in the land use planning decisions…A cooperative effort on the part of the proponent of a new noise sensitive land use and the stationary source owner is desirable for both parties".* Therefore, any solution that is considered needs to respect the ongoing and future operations of the existing legally compliant source.

Section 4: Noise Impact Assessment

11. Page 7, paragraph 6 – The findings of the roadway traffic noise impact assessment conclude that expected daytime and nighttime noise levels will meet the transportation noise level criteria and noise mitigation is not required. However, the report states "*Where the sound level limits are expected to be exceeded, mitigative measures and warning clauses are required".* Further clarification whether noise control measures for transportation noise sources are required or not should be added.

12. Table A – Multiple receptor heights have been calculated at or above 43.5 m, which may result in lower predicted levels compared to locations at a lower height. Although Gradient Wind understands that noise levels are typically nearly uniform along a building façade, please advise if the worst-case receptor height has been considered.

13. Tables A-D – It should be noted that outdoor point of reception in the context of a stationary noise assessment are identified as Outdoor Points of Reception (OPOR), not Outdoor Living Areas (OLA).

14. Tables A-D – It should be noted that impulsive noise levels are assessed in units of dBAI, not dBA as indicated in the tables.

Section 5: Noise Abatement Measures

15. Section 5.1 – As the expected roadway traffic noise levels are below the criteria and noise mitigation is not required, detailed architectural component requirement calculations are not necessary. Typical windows meeting the OBC 2020 requirements are considered sufficient.

16. Page 12, paragraph 6 – The results of the stationary noise assessment indicate that noise levels can be mitigated below the criteria with the inclusion of two 5.0 m high wing walls installed at the loading bays of each building (3280 Wharton Way and 1865 Sharlyn Road). This would indicate the dominant source of noise from the Wajax facility is truck idling and loading / unloading activities. Wajax has indicated the implementation of these wing walls on their property would severely limit their operations and is not a viable solution. One possible solution would be the inclusion of internal administrative controls that would limit/prevent continuous idling of delivery trucks on the property. Gradient Wind has witnessed this strategy be incorporated in several industrial building applications.

Section 7: Conclusions

17. Page 16, paragraph 1 – The report indicates it is feasible to develop 1840 – 1850 Bloor Street East for residential use. Gradient Wind cannot agree as the proposed 5.0 high wing wall at 3280 Wharton Way and 1865 Sharlyn Road will impact Wajax Limited's daily operations. As per NPC-300 Section B11, "*A cooperative effort on the part of the proponent of a new noise sensitive land use and the stationary source owner is desirable for both parties. For the proponent of the new*

noise sensitive land use, cooperation may result in more economical noise control measures. For the owner of the stationary source, cooperation may facilitate input into the design of the proposed new noise sensitive land use and the noise mitigation that may be appropriate for land use compatibility". A valid noise mitigation design strategy is one that is considered economically and administratively feasible by all stakeholders involved. Gradient Wind emphasises that a Class 4 designation should be revisited and explored if a mitigation strategy to achieve Class 1 noise criteria cannot be met.

3.2 Memorandum

Regarding the Memorandum dated December 2, 2021, Gradient Wind has the following comments/suggestions for a revised model:

1. The duty cycles for the exhaust fans (wall and roof) were assumed to operate 100% during daytime and 0% during nighttime. For conservatism, this is considered acceptable.

2. The duty cycles for the RTUs were assumed to operate 100% during daytime / evening and 70% during the nighttime. For conservatism, this is considered acceptable.

3. The RTUs modelled comprise approximately 4-7.5 ton units with sound power levels ranging between 77-90 dBA. The number of units associated with Building A and Building B are 8 and 7, respectively. The sound power levels used in the model are considered acceptable.

4. It is not clear if an emergency generator was included in the revised model. It is requested that the emergency generator be included in the assessment and modelled separately according to NPC-300 and Environmental Protection Act, Ontario Regulation 524/98.

5. Two truck routes were modelled; Building A had 6 truck movements per hour, and Building B had 2 truck movements per hour. As for idling trucks, a total of 4 truck idling events each hour for 3 minutes during the day were assumed. Based on correspondence with Wajax Limited, it is suggested that 3 truck movements per hour be modelled for Building A to better represent realistic truck movements on-site.

6. Regarding on-site machinery loading movements, 2 loading movements per hour is considered acceptable. However, it was noticed that the source “Machinery Idle” had a larger sound power level than “Machinery Loading” and that this source was modelled as lasting 60 minutes per hour. Additional justification is required.

7. The model includes four impulse sources; 3 at different loading bays and 1 for machinery loading onto a flat bed trailer. For each source the sound power used was 98 dBAI, for a cumulative total of 104 dBAI. The sound power level is considered acceptable, however loading bay impulse sources were observed to be positioned far from the building façade. Based on Gradient Wind’s experience, loading and unloading activities of semi-trailer transport or single-axle trucks at the loading docks are sources of impulsive noise. As such, it is suggested that the 3 loading bay impulse sources be positioned adjacent to the loading docks of each building to better represent real life loading/unloading operations.

8. It is assumed that the number of stationary noise impulses occur 9 or more times during a 1-hour period, resulting in an impulsive sound level exclusionary limit of 50 dBAI and 45 dBAI during the daytime and nighttime periods, respectively. Please provide justification for this assumption.

9. A machinery impulse source was positioned at the southwest corner of the Building A facility. It is advised that this source be relocated to the center of the Building A yard such that it is not too far from the receptors associated with the proposed residential building, while better representing noise from machinery impulse events.

10. Table “Wajax V.Area Sources” includes sources labeled “RTU9S”, “RTU9W”, and “RTU9_N”. It is not clear what these sources represent or where they are located in the model. Additional information is needed. The sources should also be depicted clearly in the figures.

11. Table “Wajax Point Sources” includes a source labeled “GN2”. It is not clear what this source represents in the model. Additional information is needed.

12. Table “Wajax Point Sources” includes a source labeled “RTU15”. Based on satellite imagery, the equipment is noticeably larger compared to other RTUs which typically results in a larger sound

power level. However, RTU15 has the same sound power level as the smaller RTUs. Additional justification is required.

13. Gradient Wind agrees with the modelling parameters used for the wash bay doors and auto shop doors.

14. It is expected that the Level 4 terrace to the south of the building will include a perimeter guard for safety purposes (typically 1.1m above the walking surface). Please advise if this was included in the noise model.

15. The industrial building located at 1885 Sharlyn Road is positioned less than 100 m from the proposed development. As such, existing stationary noise impacts from this property should also be investigated.

16. According to NPC-300, a stationary noise source is defined as "*a source of sound or combination of sources of sound that are included and normally operated* ***within the property lines of a facility****, and includes the premises of a person as one stationary source, unless the dominant source of sound on those premises is construction".* Based on this definition, all the relevant existing stationary noise sources which lie within the property boundary of a facility should be examined do determine if the property is in compliance with NPC-300 guidelines. Therefore, each industrial building (i.e., 3280 Wharton Way and 1865 Sharlyn Road) should be evaluated separately as they conduct different operations and are registered under different civic addresses within the City of Mississauga.

4. CONCLUSION

This concludes our review of the Preliminary Environmental Noise Report and Memorandum prepared by Jade Acoustics Inc. for the proposed residential development at 1840 – 1850 Bloor Street East in Mississauga, Ontario. Gradient Wind requests a revised model and report be conducted as per the comments and feedback provided in Section 3 of this letter.

Sincerely,

Gradient Wind Engineering Inc.

Giuseppe Garro, MASc.
Junior Environmental Scientist

Joshua Foster, P.Eng.
Lead Engineer

Gradient Wind File #21-355-Operation Summary Letter