Jade Inc.

Consulting Acoustics Engineers

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Tel: (905) 660-2444 Fax: (905) 660-4110

June 27, 2024

Ranee Management 4122 Bathurst Street Toronto, Ontario M3H 3P2



Attention: Ilana Glickman

VIA E-MAIL ilanag@ranee.ca

Re: Addendum to Preliminary Environmental

> Noise Report dated December 14, 2022 Proposed Residential Development

1840 to 1850 Bloor Street

City of Mississauga Our File: 19-135

As requested by the City of Mississauga Staff, Jade Acoustics Inc. (Jade) has prepared this Addendum to the Preliminary Environmental Noise Report (PENR) dated December 14, 2022, prepared for the above noted proposed development, to address technical review comments from the City of Mississauga.

In addition, and further to the above noted PENR, extensive communication and collaboration with the City of Mississauga was undertaken in order to resolve their comments, particularly regarding the implementation of the recommended Class 4 Area designation, as summarized below.

In response to the City's comments on the December 14, 2022, PENR, Jade prepared a Response to City Review Comments letter dated July 20, 2023; however, the City indicated through subsequent correspondence and a meeting with some of the developer's consultant team that they would require a third-party peer review of the PENR to be completed. The peer review included consideration of the Class 4 Area implementation.

Jade was provided with peer review comments from WSP in a letter dated August 4, 2023. Through subsequent reviews/responses and a collaborative meeting between Jade and WSP, the conclusions of the noise work prepared by Jade was found to be acceptable by WSP, including the implementation of the Class 4 Area designation on the new proposed development. This conclusion was confirmed to Jade through discussion with City of Mississauga staff, following circulation of WSP's final review letter dated November 24, 2023 (circulated to Jade on January 11, 2024).

Confirmation of the City's satisfaction with the above noted PENR and subsequent responses based on the peer review work by WSP was provided in a telephone call between Jade and City staff on January 18, 2024. At that time, City staff indicated that certain administrative/design considerations would be required to be implemented in the development based on the WSP comments. The items the City requires to be included, which may differ from the conclusions of Jade's work are as follows:

- Updated noise warning clauses accounting for the overall Class 4 Area designation for the new proposed development and the Class 1/Class 4 Area delineation accounting for the existing uses within the overall lands;
- The updated proximity warning clause due to the neighbouring Wajax facility is to include language about auditory signaling devices;
- A Schedule C Agreement acknowledging that a future Detailed Environmental Noise Report will be required, which will address any outstanding peer review comments;
- Commitment of undertaking to provide upgraded façade design for the building façade with direct exposure to Wajax; and
- Increased acoustic barrier height (1.5 m high based on the latest analysis) around the rooftop outdoor amenity area on the fourth floor to achieve the Class 4 sound level limits. The increased railing (acoustic barrier) height is to be shown on the current architectural drawings.

It should be noted that the upgraded façade design for the façade facing the Wajax facility is not a required acoustical mitigation measure based on the analysis but has been required by the City further to the peer reviews by WSP.

This addendum letter has been provided to address the current development re-submission in support of the OPA and ZBA applications. A future Detailed Environmental Noise Report will need to be prepared once detailed design information is available. On this basis, this letter discusses some of the above listed items only in the context of acknowledgement of required undertaking by the developer.

<u>Updated Noise Warning Clauses</u>

The following warning clauses are as generally recommended in the PENR dated December 14, 2022, but with the updated language as stipulated by the City of Mississauga. As per the PENR, the warning clauses apply to all proposed dwelling units.



Suggested warning clauses to be included in the development agreement and to be included in offers of purchase and sale or lease agreements on designated buildings (suites):

- A. "Purchasers/tenants are advised that despite the inclusion of noise control features in this development area and within the dwelling units, noise due to increasing road traffic may continue to be of concern, occasionally interfering with the activities of the occupants as the sound level may exceed the noise criteria of the Municipality and the Ontario Ministry of the Environment, Conservation and Parks. I, the purchaser hereby agrees to place this clause in all subsequent offers of purchase and sale when I sell the property."
- B. "Purchasers/tenants are advised that the dwelling unit was fitted with a central air conditioning system in order to permit closing of windows for noise control."
- C. "Purchasers/tenants are advised that this residential unit is in proximity to the existing industrial buildings whose activities, including auditory signalling devices, may at times be audible."
- D. "Purchasers/tenants are advised that sound levels due to the adjacent industrial buildings are required to comply with sound level limits that are protective of indoor areas and are based on the assumption that windows and exterior doors are closed. This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed. The residential area has been designated Class 4 as defined by the Ministry of the Environment, Conservation and Parks guidelines.

Further to Warning Clause D related to the Class 4 Area designation, implementation of Class 4 was discussed at length with the City, which caused the preparation of an R-Plan (by others) reflecting the Class 1/Class 4 Area delineation through the overall site, owned by the same owner. All Warning Clauses above apply to Part 2 of the R-Plan. The R-Plan has been included herein as Appendix A. Note that the noise class area delineation is also shown in the updated architectural drawings dated June 26, 2024.

Schedule C Agreement

The involvement in discussion and acceptance of the terms of any agreement related to this development are outside of the scope of Jade's work and should be addressed directly with the proponent of the development. This section has been included for completeness further to the above listed item reflecting the need for the Schedule C Agreement and associated commitments.



Upgraded Architectural Façade Design

As indicated through discussion with the City of Mississauga, they will require acoustical upgrades for the residential building façades with direct exposure to Wajax, based on peer review comments by WSP. The architectural design is not sufficiently advanced in order to evaluate the details of the upgrades at this time; however, as noted above, the City has required commitment of undertaking of this design item.



We note again that the upgraded façade consideration is not due to the technical findings of the acoustical review by Jade, as the analysis demonstrated compliance with the Class 4 sound level limits. Further, there are no indoor sound level limits associated with stationary noise source review, per the applicable guidelines of the Ministry of the Environment, Conservation and Parks (MOE). The façade upgrades are required by the City as a qualitative consideration.

Once the building design has progressed to the detailed stage, Jade can coordinate with the architect on the project in order to determine proposed performance for specific façade components to meet the intent of the City.

Increased Railing Height at the Rooftop Common Outdoor Amenity Area

As identified through City of Mississauga review comments on the December 14, 2022 PENR, it was incorrectly stated that compliance with the Class 4 sound level limits was achieved with a standard height railing at the fourth-floor rooftop common outdoor amenity area. The conclusions were updated and shown on Figures 1 and 2 of Jade's Response to City Review Comments letter dated July 20, 2023.

The updated conclusions show that with the installation of a 1.5 m high acoustic barrier along all roof edges of the common outdoor amenity area, the Class 4 sound level limits are predicted to be met. The above noted response letter, including Figures 1 and 2, is included herein as Appendix B for ease of reference. The architectural drawings dated June 26, 2024 reflect the same configuration of the building and outdoor amenity area as was considered in preparation of the 2022 PENR; therefore, the preliminary conclusion regarding the required barrier height remains applicable at this time.

In order to be considered an acoustic barrier, the railing will need to be solid, gapless, and meet the minimum surface density requirements of an acoustic barrier (20 kg/m²).

Once the development has progressed to the detailed design stage, the acoustic barrier analysis will need to be revisited to confirm the noted barrier height is acceptable, or otherwise update the conclusions.

It should be noted for completeness that there are additional common outdoor amenity areas located at grade within the overall 1840 to 1850 Bloor Street lands wherein the Class 1 sound level limits are predicted to be met.

Further to the items discussed above in this letter, there were agency review comments issued directly by the City of Mississauga on the December 14, 2022 PENR. Responses to those comments have been provided in the July 20, 2023 response letter and therefore have not been explicitly addressed again herein. The response letter was subject to review by WSP on behalf of the City and comments were resolved accordingly. The July 20, 2023 response letter has been included as Appendix B, as noted above.

If there are any questions or additional information is required, please call.

JADE

Yours truly,

Per:

Chris B. Kellar, P.Eng.

Michael Bechbache, P.Eng.

Dun. 27, 2024

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c.c.: Anna Wynveen, Bousfields Inc. (awynveen@bousfields.ca)

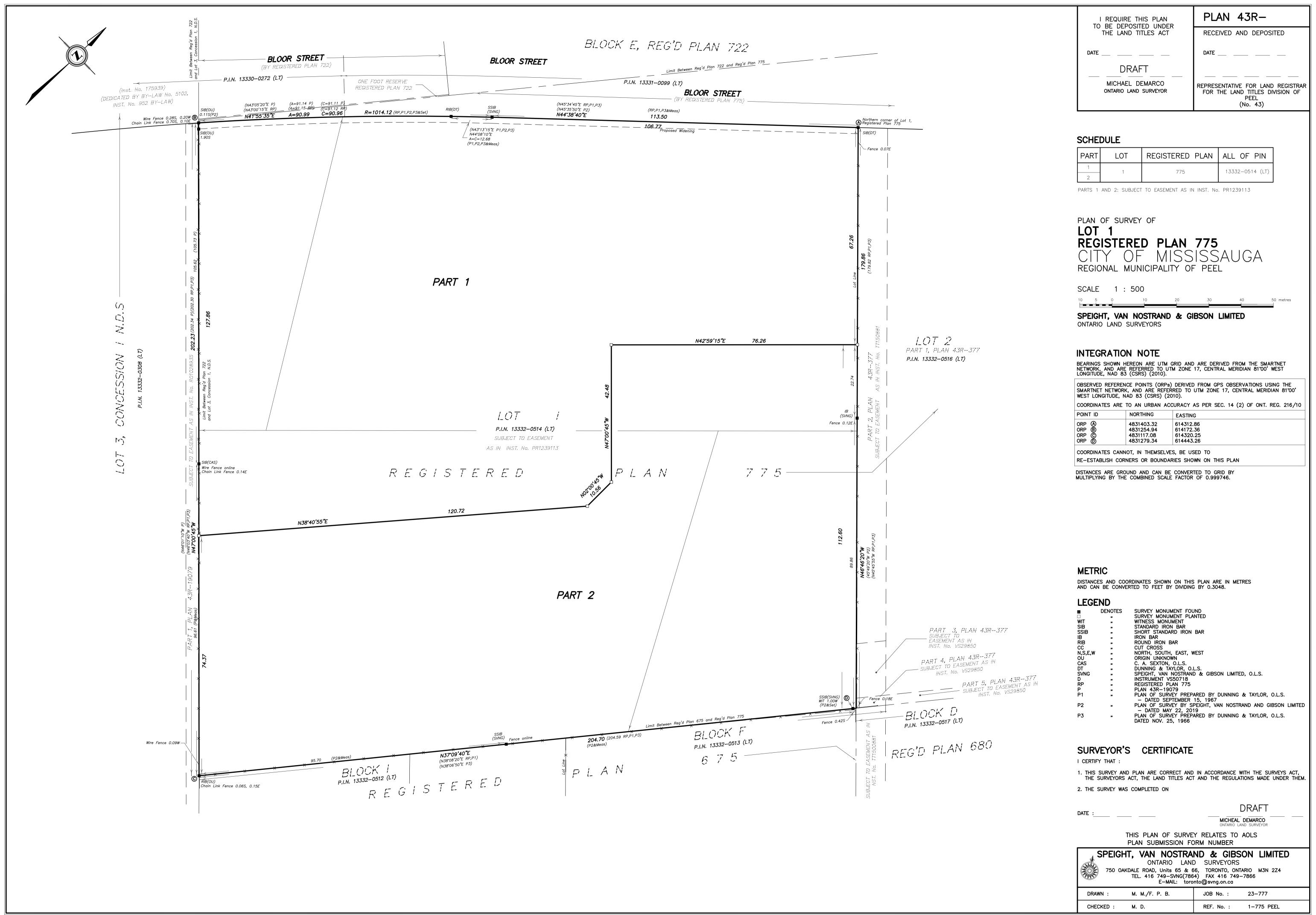
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APPENDIX A

NOISE CLASS AREA DELINEATION DRAWING PLAN 43R-###



APPENDIX B						
RESPONSE TO CITY REVIEW COMMENTS LETTER DATED JULY 20, 2023 PREPARED BY JADE ACOUSTICS INC.						
1840 to 1850 Bloor Street – Addendum June 2024 Jade Acoustics Inc.						

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July 20, 2023

Ranee Management 4122 Bathurst Street Toronto, Ontario M3H 3P2

Attention: Ilana Glickman

VIA E-MAIL ilanag@ranee.ca



Re: Response to City Review Comments

Proposed Residential Development 1840-1850 Bloor Street City of Mississauga Our File: 19-135

As requested, and further to the meeting with the City of Mississauga staff on June 12, 2023, Jade Acoustics Inc. is providing response City's review comments provided in the Planning Application Status Report dated June 9, 2023. The City's review comments were provided based on the review of the Preliminary Environmental Noise Report dated March 11, 2020. revised December 14, 2022, prepared by Jade Acoustics Inc.

For consistency and completeness, we have reiterated the City's comments along with Jade's response.

Responses to City Review Comments

Planning and Building - Planner-Development Design

Comment #7:

"Review Dev Eng comments regarding noise. More information and peer reviewed study is required in order to evaluate Class 4.

Clarify if the lands will be severed or Condominiumized. Are any land divisions proposed? We are not aware of any examples of Class 4 classification on a portion of property. Our practice is that Class 4 is attached to the entire property. Are you able to demonstrate a land division that aligns with the noise classifications?

NEC Guideline specificies: "Additionally, areas with existing noise sensitive land use(s) cannot be classified as Class 4 areas."

Provide examples where and existing noise-sensitive land use has been reclassified and where noise classification does not follow property lines.

OP 6.10.1.6a: The use of Class 4 will only be considered where it can be demonstrated that the development proposal is for a new noise sensitive land use in proximity to an existing, lawfully established stationary noise source;



- the development proposal for a new noise sensitive use does not impair the long term viability and operation of an employment use;
- it is in the strategic interest of the City, furthers the objectives of Mississauga Official Plan and supports community building goals; and
- all possible measures of noise attenuation have been assessed for both the proposed development site and the stationary noise source, including, but not limited to, building design and siting options for the proposed new noise sensitive use."

Response:

As discussed with City staff at the meeting on June 12, 2023, in response to this comment, examples of partial Class 4 sites are being investigated and a specific response will be provided separately.

That said, in response to the applicability of Class 4, we wanted to offer clarification on the interpretation of NPC-300. The comment quotes a portion the NPC-300 definition of *Class 4 Area*, stating "Additionally, areas with existing noise sensitive land uses cannot be classified as Class 4 areas." This definition is understood to indicate that without alteration to the subject noise sensitive land use, a direct reclassification to Class 4 is not permitted; however, the applicability is expanded upon in this context in Section C4.4.3, which states:

"... When an existing noise sensitive land use that is classified as a Class 1 or Class 2 area is replaced, redeveloped or rebuilt, the proposed new noise sensitive land uses may be classified as a Class 4 area."

To further clarify in the context of the development application (notwithstanding and independent of the planning related land division consideration), the intention will be to designate the new proposed use as Class 4, while the existing noise sensitive uses on

the subject property would remain Class 1. The implementation of the partial Class 4 designation is being reviewed as noted above, in consideration of this review comment.

<u>Planning and Building – Urban Designer</u>

Comment #8:

"DEVELOPMENT AGREEMENT

The following clauses shall be included in the Planning and Building Section of Schedule C in the Development Agreement:



NOISE

- a) Prior to Site Plan approval, an individual Detailed Noise and Vibration Study shall be prepared by a qualified acoustical consultant to identify all transportation and stationary noise sources impacting the development proposal and recommending noise control measures for the proposed buildings and outdoor living areas to the satisfaction of the City of Mississauga's Planning and Building Department. The Detailed Noise Report shall also determine the noise impacts associated with the mechanical equipment and ventilation systems (i.e. cooling towers, garage exhaust fans, emergency generator, HVAC units etc.) for the proposed buildings and the building(s) in the immediate vicinity to ensure that all mechanical equipment will meet the Ministry of the Environment, Conservation and Parks (MECP) guidelines for stationary noise sources. Should a noise barrier, noise screen or any off-site stationary noise mitigation be required as a result of this analysis, sufficient securities will be required to ensure the construction of all noise mitigation features as part of the site plan process.
- b) Prior to Site Plan approval, the following clause is to be included on the Site Plan:

"The Acoustical Consultant shall certify to the Planning and Building Department that the 'as constructed' site features for noise and vibration control including, but not limited to noise walls and berms, the ?as constructed? buildings, mechanical equipment and ventilation systems for the buildings on-site and the off-site stationary noise sources are in compliance with the Detailed Noise Report as prepared for the particular building and in compliance with the Ministry of the Environment, Conservation and Parks (MECP) guidelines for transportation and stationary noise sources. The Acoustical Consultant shall also certify to the Planning and Building Department that the indoor noise levels and noise levels for outdoor living areas resultant from all transportation noise sources will meet Regional guideline conditions based on outside sound energy exposures outlined in the Detailed Noise Report for the subject building?.

c) Prior to the release of site plan securities, the Acoustical Consultant shall certify to the Planning and Building Department that the 'as constructed' site features for noise control and vibration including, but not limited to noise walls and berms, the `as constructed? buildings, mechanical equipment and ventilation systems for the buildings on site and the off-site stationary noise sources are in compliance with the Detailed Noise Report as prepared for the particular building and in compliance with the Ministry of the Environment, Conservation and Parks (MECP) guidelines for stationary noise sources. The Acoustical Consultant shall also certify to the Planning and Building Department that the indoor noise levels and noise levels for outdoor living areas resultant from all transportation noise sources will meet Regional guideline conditions based on outside sound energy exposures outlined in the Detailed Noise Study for the subject building and that no new noise impacts have been identified since the latest approved Detailed Noise Study.



d) The site plan securities required by the Planning and Building Department will include \$5000 to secure for the Noise Certification to be prepared by a Professional Engineer with experience in environmental acoustics. The \$5000 securities shall only be released to the applicant when the required Noise Certification has been provided to the satisfaction of the Planning and Building Department."

Response:

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- b) Noted.
- c) Noted.
- d) Noted.

Transportation and Works - Development Engineering Review

Comment #2:

"[REVISIONS TO JADE ACOUSTICS NOISE STUDY]

Further to the review of the Preliminary Environmental Noise Report from Jade Acoustics, dated December 14, 2022, the following comments are provided:

- (i) Section 1.0 of the report indicates that additional site visits were conducted by Jade Acoustics on December 12, 2020 and May 19, 2022, however December 12, 2020 is a Saturday and it is the City's understanding that Wajax operates from Monday to Friday only, therefore Jade is to clarify how any measurements performed on a Saturday are reflective of the worst-case scenario. Section 4.2 also states that the site visits were performed on those dates.
- (ii) The report indicates on Section 2.2.2 and 4.2 that additional information was received from Wajax staff and that this updated information was used in the preparation of the updated acoustic models. However, no updated information was provided in the Appendix. Appendix F is the same questionnaire that was provided from 2019. Any updated information from Wajax that supports/justifies the updates to the acoustic models should be documented in the Appendix.
- (iii) Table A shows noise levels due to continuous noise sources, which ought to be compared against the limits shown in Tables C-5 and C-6 of the NPC-300 Guidelines. The Podium OLA (R1) and At-grade OLA (R2) are considered Outdoor Points of Reception and therefore the limit for Class 4 on Table C-5 is 55dBA not 60.
- (iv) Table B shows noise levels due to impulsive noise sources, which ought to be compared against the limits shown in Tables C-7 and C-8 of the NPC-300 Guidelines. The Podium OLA (R1) and At-grade OLA (R2) are considered Outdoor Points of Reception and therefore the limit for Class 4 on Table C-7 is 55dBAI not 60 (assuming 9 impulses or more per hour).
- (v) Because of the limit mentioned above in item (iv) for the Outdoor Point of Reception, this means that the Podium OLA (R1) at 56dBAI does not even comply with Class 4 limits. This Podium OLA (R1) MUST be screened and noise levels mitigated. Provide a table on this noise report that shows mitigated noise levels varying from 50 to 55 dBAI vs. noise barrier heights required. The ultimate height of the noise barrier will be determined in conjunction with the Planning and Building Department. As a reminder, update all applicable drawings to show this barrier.
- (vi) Section 5.2 of the report states that "Other alternatives to the use of the Class 4 designation were investigated and determined to be not feasible or desirable by the developer. These include a variety of special building designs and local property line barriers."

The NPC-300 Guidelines, Section C7.6, indicates that the 2nd option for noise control measures, after control at the source, is "Receptor based outdoor noise control



measures". Therefore the applicant is to demonstrate through the noise report what barriers/noise control measures would be required in order to mitigate noise levels. Provide two tables that show required barrier heights within the developer's property vs. mitigated sound levels for both Class 1 and Class 4 and for both continuous and impulsive sounds. The City will evaluate whether these measures are not feasible for technical, economic or administrative reasons once the information is provided.

(vii) The City will consider if there is merit for a Class 4 designation based upon the applicant satisfactorily addressing all the noise comments provided in this ASR, including any Planning and Building comments related to noise"



Response:

- i) The site visit was conducted on December 10, 2020. The December 12 date is a typographical error.
- ii) The updated information from Wajax was obtained through discussion with staff during the May 19, 2022 site visit as well as additional sound measurements on site. The additional sound measurements were used to supplement the acoustic model. Information on the updated noise source sound specifications is included in the revised December 14, 2022 report. The updated acoustic model and revised report also considered information and confirmation of assumptions of Wajax's operations through Gradient Wind's (the acoustical consultant for Wajax) peer review letter dated February 11, 2022 and subsequent discussions on their peer review letter.
- iii) The comment is correct, and the updated report will reflect the correct sound level limit.
- iv) The comment is correct, and the updated report will reflect the correct sound level limit.
- v) Despite the shown 56 dBAI predicted daytime sound level at the receptor location due to impulsive noise sources at Wajax, the majority of the rooftop OLA area is predicted to experience a sound level of 55 dBAI or less, as shown in the attached Figure 1. Additionally, as the guidelines require one acoustically protected OLA be provided for the development, the at-grade OLA areas at the north side of the building sufficiently addresses the requirement. That said, based on the analysis, an increased railing height of 1.5 m would be required along the podium roof edge, in the location shown on attached Figure 2, in order

to enable predicted compliance with the Class 4 daytime sound level limits (and actually the Class 1 limits) at all areas of the rooftop OLA.

- vi) As noted in the comment, the consultant team explored several alternative design options which were deemed infeasible. These options were presented to City staff previously, as mentioned in the June 12, 2023 meeting. Previous meetings with City staff were held virtually on May 26, 2021 and January 11, 2022. For example, in order to meet the Class 1 sound level limits for impulsive noise (as impulsive noise governs the mitigation requirements), an extended acoustic barrier along the roof edge nearly the height of the proposed towers would be needed in order to screen the line-of-sight to the relevant noise sources. This is shown on attached Figures 3 and 4. The lone 51 dBA sound level prediction is at the roof edge and not reflective of a receptor location.
- vii) Noted. We are providing responses to address the comments, including additional supporting information as requested by the commenting city staff in the June 12, 2023 meeting.

Comment #3:

"[COMMENTS FROM THE GRADIENT-WIND PEER REVIEW ON BEHALF OF WAJAX]

Further to the review of the Peer-Review of Environmental Noise Assessment by Gradient Wind Engineers & Scientists, dated February 11, 2022, which was commissioned by Wajax and a copy to the City provided, the following comments are provided:

(i) Comment #16 on Section 3.1 of this peer-review indicates that: "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."

Jade Acoustics is to explore and discuss the above-noted option in their report.

(ii) Comment #4 on Section 3.2 of this peer-review indicates that: "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."

Jade Acoustics is to discuss the emergency generator in their report as per above.

(iii) Comment #15 on Section 3.2 of this peer-review indicates that: "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."

Jade Acoustics is to assess noise impacts from 1885 Sharlyn Road as per above.."

Response:



- i) This comment and administrative control can be investigated; however, despite the comment from their noise consultant, Wajax has indicated that they do not support acoustic mitigation measures within their lands. This was understood to include any operational deviations from normal practices.
- ii) The backup generator observed on site is located on the southwest side of the Wajax building with full and immediate exposure to the existing low-rise residential development across the hydro corridor. The existing low-rise dwellings are the worse-case receptors when compared to the proposed development; therefore, as sound level limit compliance is required at the existing receptors, it is consequently expected at the proposed development. Explicit inclusion of the emergency backup generator in the noise report is therefore not warranted.
- Through aerial and street-level imagery available online, the building at 1885 Sharlyn Road has minimal rooftop mechanical equipment and the laneway appears too narrow to accommodate any significant trucks. As the predicted sound levels due to continuous noise sources are well below the Class 4 limits, there appears to be no evidence to warrant including the 1885 Sharlyn Road building. In terms of impulsive noise, the limited loading bays are located at the front side of the building, such that the building provides physical shielding. On this basis, the inclusion of potential impulsive noise associated with the 1885 Sharlyn Road building is not warranted.

Comment #4:

"[NOISE STUDY PEER REVIEW REQUIRED]

The developer is advised that the City will engage an Acoustical Engineering Consultant to conduct a Peer Review on the Preliminary Environmental Noise Report prepared by Jade Acoustics. The developer shall make arrangements with Development Engineering

to pay for this peer review that will be conducted by an independent consultant chosen by the City, in accordance with Transportation and Works Fees and Charges By-law.

Additional comments will be provided in subsequent submissions."

Response:

Noted.



If there are any questions or if additional information is required, please contact us.

PROFESSIONAL

Jul. 20, 2023

M. R. BECHBACHE 100226571

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PROFESSIONAL TRANSPORT

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Yours truly,

JADE ACOUSTICS INC.

Per:

Michael Bechbache, P.Eng.

Per:

Chris B. Kellar, P.Eng.

Anna Wynveen, Bousfields Inc. (awynveen@bousfields.ca) C.C.:

Att.