



Hamilton

# RECOMMENDATION REPORT

<b>TO:</b>	Chair and Members Planning Committee
<b>COMMITTEE DATE:</b>	July 11, 2023
<b>SUBJECT/REPORT NO:</b>	Request for Class 4 Designation for Lands Located at 115 and 121 Vansitmart Avenue, Hamilton (PED23172) (Ward 4)
<b>WARD(S) AFFECTED:</b>	Ward 4
<b>PREPARED BY:</b>	Daniel Barnett (905) 546-2424 Ext. 4445
<b>SUBMITTED BY:</b>	Steve Robichaud Director of Planning and Chief Planner Planning and Economic Development Department
<b>SIGNATURE:</b>	

## RECOMMENDATION

That staff be directed to report back upon receipt of comments from Canadian National Railway on the Class 4 Area designation, additional noise assessment information from the applicant and a peer review, if deemed necessary by staff and at the expense of the owner, of the updated noise and vibration study to confirm the assumptions made in the study relating to impulse sound levels and indoor noise levels for sleeping quarters.

## EXECUTIVE SUMMARY

At the June 13, 2023, Planning Committee meeting, staff were “directed to report back to the July 11, 2023 Planning Committee with recommendations about granting a Class 4 Noise exemption to the development application located at 115 and 121 Vansitmart Avenue”.

This report provides clarification on the applicable Provincial and Urban Hamilton Official Plan policies, the Provincial Noise Guidelines and application of the Class 4 Area designation.

## Alternatives for Consideration – See Page 9

## FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: N/A

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Staffing: N/A

Legal: N/A

## **HISTORICAL BACKGROUND**

Zoning By-law Amendment application ZAC-16-046 was received on July 19, 2016 and deemed complete on July 29, 2016, and Urban Hamilton Official Plan Amendment application UHOPA-17-026 was received on June 19, 2017 and deemed complete July 18, 2017. The applications were heard before Planning Committee on June 5, 2018 and approved by Council on June 27, 2018. A preliminary Environmental Noise and Vibration Impact Study prepared by dBA Environmental Services Inc. dated May 2016, updated June 2017, was submitted with the applications and noted the rail yard to the north of the subject lands as a noise source and identified noise mitigation measures that would be required but did not identify the need for a change in noise classification from Class 1 Area to Class 4 Area.

Site Plan Control application DA-19-015 was received by the City in December 2018 and deemed complete on January 25, 2019. Conditional approval was granted for the development to permit 40 back-to-back townhouses on June 27, 2019. Through the Site Plan Control application, the application was circulated to, and comments were received from Canadian National Railway respecting the proposed development. The conditional approval required that all noise mitigation measures to achieve compliance with Ministry of the Environment, Conservation and Parks be identified on the final site plan. Special conditions respecting Canadian National Railway were added to the conditional approval letter dated June 27, 2019 including:

- 1) The owner shall enter into an agreement with the Canadian National Railway stipulating how the Canadian National Railways concerns will be resolved and will pay the Canadian National Railways reasonable costs in preparing and negotiating the agreement; and,
- 2) The owner shall be required to grant the Canadian National Railway an environmental easement for operational noise and vibration emissions, registered against the subject property in favour of the Canadian National Railway, to the satisfaction of the Canadian National Railway.

An Environmental Noise Report dated January 2021 prepared by dBA Acoustical Consultants Inc. was submitted to address the conditionally approved Site Plan. The conclusions of the report did not identify or request the development be re-classified from Class 1 Area to Class 4 Area.

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Subsequently a Noise and Vibration Impact Study dated November 28, 2022 (see Appendix "A" attached to Report PED23172) and an addendum letter dated January 25, 2023 (see Appendix "B" attached to Report PED23172) were prepared by Thornton Tomasetti which recommended a re-classification from Class 1 Area to Class 4 Area for the subject lands. As the studies prepared by dBA Acoustical Consultants Inc. did not identify or provide analysis respecting a Class 4 Area re-classification, no further analysis of those studies is provided in this report. References to noise studies in this report pertain to the November 28, 2022 study and January 25, 2023 addendum letter prepared by Thornton Tomasetti.

The noise study noted that stationary noise sources is predicted to exceed an applicable Class 1 Area sound level limit at the north façade of the northerly most townhouse block due to steady noise. The facades of this block are also impacted due to impulse noise if it is assumed that nine or more impulses will occur per hour. The study noted that noise due to stationary noise source is predicted to meet the applicable Class 4 Area sound level limits at all facades, if it is assumed that at most two of the loudest impulses (train slack taking during departure) will occur per hour. As the noise study relied on an assumed number of loudest impulses and did not identify the number of loudest impulses per hour that are actually occurring, staff are unable to confirm these assumptions and whether the proposed development would comply with the Ministry of the Environment, Conservation and Parks noise criteria.

The noise study outlined that the indoor noise levels resulting from on-site noise mitigation measures such as central air condition, enhanced window and wall construction will result in an indoor sound level of 40 dBA for both steady stationary noise and for impulse noise sources from the rail yard. The study does not provide an analysis of the indoor noise levels for living / dining room as opposed to the level for the bedroom.

The noise study noted that mitigation to achieve Class 1 Area limits would not be feasible and that while detailed analysis of mitigation options to achieve Class 1 Area is not provided, based on preliminary modelling, a noise barrier wall in the range of 10 metres in height across the entire rear of the property and partway down the sides would be required in order to meet the Class 1 Area impulse noise limits.

As the noise source at issue pertains to a Canadian National Railway yard, the noise study submitted with the delegation request has been circulated to Canadian National Railway for comment. At the time of the preparation of this report, comments have not yet been received.

## **POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS**

### **Provincial Policy Statement and Urban Hamilton Official Plan**

With respect to noise, Policy 1.2.6.1 of the Provincial Policy Statement states:

*“Major facilities and sensitive land uses shall be planned and developed to avoid, or if avoidance is not possible, minimize and mitigate any potential adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term operational and economic viability of major facilities in accordance with provincial guidelines, standards and procedures.”*

With respect to noise, the following policies of the Urban Hamilton Official Plan are applicable to the proposed development:

“B.3.6.3.1 Development of noise sensitive land uses, in the vicinity of provincial highways, parkways, minor or major arterial roads, collector roads, truck routes, railway lines, railway yards, airports, or uses considered to be noise generators shall comply with all applicable provincial and municipal guidelines and standards.

#### **Railway Corridors and Yards General Policies**

B.3.6.3.14 As determined by the City, a noise feasibility study, or detailed noise study, or both, shall be submitted prior to or at the time of application submission, for development of residential or other noise sensitive land uses on lands within 400 metres of a rail yard.

B.3.6.3.15 The City shall consult with the appropriate railway company in the review of any noise or vibration study required as a consequence of proximity to railway lines or yards. All noise and vibration studies and associated applications required as a consequence of proximity to railway lines or railway yards shall be circulated to the appropriate railway company for comment.

B.3.6.3.16 All proposed development adjacent to railways or railway yard shall ensure that appropriate safety measures such as setbacks, berms, and security fencing are provided to the satisfaction of the City and in consultation with the appropriate railway company.

B.3.6.3.17 As a condition of approval of development applications where noise or vibration studies are required as a consequence of proximity to railway

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lines or railway yards, appropriate warning clauses shall be included in lease or rental agreements, agreements of purchase and sale, and within development agreements.

Noise, Vibration and other Emissions from Stationary Sources, Including Railway Yards

B.3.6.3.18 The City shall ensure that all development or redevelopment with the potential to create conflicts between sensitive land uses and point source or fugitive air emissions such as noise, vibration, odour, dust, and other emissions complies with all applicable provincial legislation, provincial and municipal standards, and provincial guidelines, and shall have regard to municipal guidelines. The City may require proponents of such proposals to submit studies prior to or at the time of application submission, including the following: noise feasibility study; detailed noise study; air quality study; odour, dust and light assessment; and any other information and materials identified in Section F.1.19 – Complete Application Requirements and Formal Consultation.

B.3.6.3.19 Development or redevelopment with the potential to create conflicts between sensitive land uses and point source or fugitive air emission such as noise, vibration, odour, dust, and other emissions may include:

- a) Development or redevelopment of sensitive land uses in the vicinity of commercial or any other uses with the potential to produce point source or fugitive air emission such as noise, vibration, odour, dust, and other emissions, including those with a high number of deliveries, loading areas, and other noise generating features such as a drive-through speaker, or car wash.
- b) Development or redevelopment of new employment (industrial) facilities including railway yards in the vicinity of sensitive land uses;
- c) Commercial or any other uses with the potential to produce point source or fugitive air emission such as noise, vibration, odour, dust, and other emissions, including those with a high number of deliveries, loading areas, and other noise generating features such as a drive-through speaker, or car wash, in the vicinity of sensitive land uses; and,
- d) Development or redevelopment of sensitive land uses in the vicinity of significant employment (industrial) facilities including railway yards.”

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As the subject lands are within 400 metres of a railway corridor and railway yard a noise feasibility study was required as part of the Official Plan Amendment and Zoning By-law Amendment applications and subsequently as part of the Site Plan Control application to address both City and Provincial noise guidelines. As the predicted noise levels of the dwelling units will exceed 50 dBA in the day and 45 dBA at night, in accordance with provincial and municipal requirements, noise mitigation measures shall be required.

The policies of the Urban Hamilton Official Plan require the City to consult with the appropriate railway company (Canadian National Railway) in the review of any noise or vibration study required as a consequence of proximity to railway lines or yards, therefore comments from Canadian National Railway on this matter are required and have not yet been received.

**Environmental Noise Guideline (Publication NPC-300)**

The Ministry of the Environment, Conservation and Parks has a noise criteria guideline entitled “Environmental Noise Guideline: Stationary and Transportation Noise Sources – Approval and Planning (NPC-300) to provide advice, sound level limits and guidance that may be used when land use planning decisions are made under the *Planning Act* to minimize potential conflict.

The Guideline includes definitions of four class areas:

- Class 1 Area means an area with an acoustical environment typical of a major population centre where the background sound level is dominated by the activities of people, usually road traffic, often referred to as “urban hum”.
- Class 2 Area means an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 Areas:
  - Sound levels characteristic of Class 1 Area during daytime (07:00 to 19:00 or to 23:00); and,
  - Low evening and night background sound level are defined by natural environment and infrequent human activity as early as 19:00 hours.
- Class 3 Area means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as:
  - A small community;
  - Agricultural area;
  - A rural recreational area such as a cottage or a resort area; or,
  - A wilderness area.

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- Class 4 Area means an area or specific site that would otherwise be defined as Class 1 or 2 Area and which:
  - Is an area intended for development with new noise sensitive land uses(s) that are not yet built;
  - Is in proximity to existing, lawfully established stationary source(s); and,
  - Has formal confirmation from the land use planning authority with the Class 4 Area classification which is determined during the land use planning process.

Additionally, areas with existing noise sensitive land use(s) cannot be classified as Class 4 Areas.

A federally-regulated railway yard is considered to be a stationary noise source that may not require Ministry of the Environment, Conservation and Parks approval as per the definition of stationary sources in NPC-300.

The use of Class 4 Area is meant to be a tool to allow municipalities to approve a noise sensitive land use with relaxed noise limit levels in an area of existing stationary noise sources. The proposal is for a new sensitive land use (residential) that is not yet developed on the subject lands and there are no existing sensitive land uses on-site. The subject property is in proximity to an existing lawfully established stationary noise source, a rail yard, and the applicant is seeking authorization from Council for a change from a Class 1 Area to Class 4 Area noise classification. Therefore, the criteria for a Class 4 Area are being met.

### **Stationary Noise Source**

The Ministry of the Environment, Conservation and Parks criteria NPC-300 establish a maximum sound level for stationary noise sources of 50 dBA daytime and 45 dBA night time for the plane of the window for a Class 1 Area and 60 dBA daytime and 55 night-time for the plane of the window for a Class 4 Area. As per table 15 of the noise study the proposed development will not comply with the levels for a Class 1 Area in respect to the steady sound level but will comply with both the daytime and night-time sound levels of a Class 4 Area.

### **Impulse Sound Levels**

The Ministry of the Environment, Conservation and Parks criteria of NPC-300 establishes varying maximum sound levels for a Class 1 Area for impulsive sound levels depending on the number of impulses in a period of one hour. In the daytime the levels range from 80 dBA for one impulse per hour to 50 dBA for nine or more impulses per hour, and 75 dBA to 45 dBA for night-time respectively. For a Class 4 Area the daytime

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levels range from 90 dBA for one impulse per hour to 60 dBA for nine or more impulses per hour, and 85 dBA to 55 dBA for night-time respectively.

With respect to impulse noises the noise study indicates that the northerly block will exceed the maximum permitted levels for a Class 1 Area. In respect to a Class 4 Area the study states “noise due to stationary noise sources is predicted to meet the applicable Class 4 Area sound levels limits at all facades, if it is assumed that at most two of the loudest impulses (train slack taking during departure) will occur per hour”. The study does not outline the actual number of impulses per hour that are impacting the site based on observation / monitoring to confirm that using an assumption of two of the loudest impulses per hour is appropriate. If there were to be more than two impulses per hour the development would not meet the sound level limits for a Class 4 Area. Based on the foregoing, staff cannot confirm whether the proposed development will comply with the Ministry of the Environment, Conservation and Parks criteria of NPC-300.

### **Rail Noise**

The Ministry of the Environment, Conservation and Parks criteria of NPC-300 - Table C-9 outlines indoor sound level limits for road and rail. In respect to rail noise, Table C-9 of NPC-300 identifies a maximum noise level of 40 dBA between 7 a.m. and 11 p.m. for living/dining areas of residences, and for sleeping quarters of residences, and a maximum noise level of 35 dBA is permitted between 11 p.m. and 7 a.m. The noise study notes Table C-9 in respect to the indoor sound level limits based on the mitigation measures and that a sound level of 40 dBA is achieved but does not differentiate between bedrooms and living/dining areas. According to Table C-9 a noise level of 40 dBA will be appropriate for living/dining rooms but would not be appropriate for bedrooms. Based on the foregoing, the noise study has not demonstrated that the indoor noise levels will be appropriate. Additional information is required.

### **RELEVANT CONSULTATION**

As the request for Class 4 Area designation is to address stationary noise levels generated by a Canadian National Railway facility, and the Urban Hamilton Official Plan requires the City to consult with the appropriate railway company in the review of any noise or vibration study required as a consequence of proximity to railway lines or yards, the noise impact study and addendum prepared by Thornton Tomasetti were circulated to Canadian National Railway on June 14, 2023. At the time of writing this report comments from Canadian National Railway have not yet been received.

In addition, as the request is being undertaken in an effort to address conditions of Site Plan Control that are to the satisfaction of Canadian National Railway, comments from the Canadian National Railway are relevant in respect to whether the change to a Class



4 Area designation will satisfy the Canadian National Railway and therefore allow them to clear the respective conditions of Site Plan Control.

## **ANALYSIS AND RATIONALE FOR RECOMMENDATIONS**

1. Based on the material submitted, staff cannot confirm at this time that the proposed development will comply with the noise criteria for a Class 4 Area for the following reasons:
  - The noise study bases the recommendations on the assumptions of two loudest impulses per hour and the applicant has not confirmed how many actual impulses per hour are taking place. If there are a greater number of impulses, the development may not meet the Class 4 Area impulse sound level requirements.
  - The noise study has demonstrated that indoor noise levels are appropriate for living / dining areas of residences but has not demonstrated that the indoor noise levels will be acceptable for a sleeping quarter as outlined in the Provincial guidelines.
  - Comments from Canadian National Railway have not yet been received.

Therefore, based on the foregoing staff cannot recommend support for a change in classification from Class 1 Area to Class 4 Area at this time.

2. The City does not have on staff an engineer to undertake a complete and in-depth evaluation of the noise study and the respective addendums. In the event that the concerns noted in this report are not addressed, it may be necessary for a peer review of the noise study, the addendum noise study and any additional information provided. Should a peer review be determined to be required by staff, staff would retain the services of an independent acoustical consultant, the cost of which would be borne by the applicant.

## **ALTERNATIVES FOR CONSIDERATION**

1. Council may choose to designate the lands as a Class 4 Area however this is not recommended because staff are of the opinion that additional noise assessment information (with a possible peer review) and comments from Canadian National Railway are required.
2. Council may choose to refuse to designate the lands as a Class 4 Area. In this case the applicant would be required to either revise their development proposal or establish any required noise mitigation measures so that the development

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conforms to the noise criteria of Ministry of the Environment, Conservation and Parks, for a Class 1 Area.

**APPENDICES AND SCHEDULES ATTACHED**

Appendix "A" to Report PED23172 - Noise Study by Thornton Tomasetti, dated  
November 28, 2022

Appendix "B" to Report PED23172 - Noise Study Addendum by Thornton Tomasetti,  
dated January 25, 2023

DB:sd