



1265 Teron Road, Kanata Ontario
Megha Holdings Inc.

Noise Assessment Report

December 3, 2020

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1.0 Introduction

Megha Holdings has retained BT Engineering Inc. (BTE) to undertake a stationary noise assessment of their proposed laboratory/office development for lands at 1265 Teron Road in Kanata, Ontario. The site plan, prepared by KWC Architects, is illustrated in **Figure 1**.

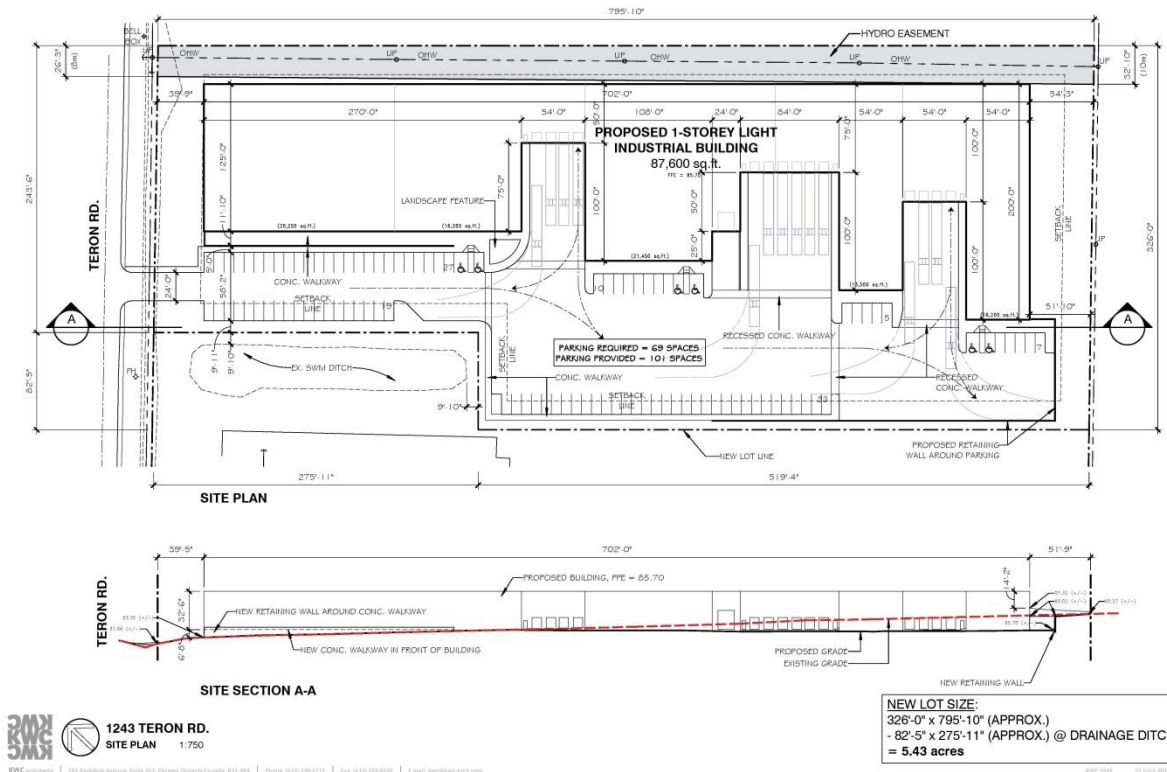


Figure 1: Development Site Plan

The proposed development will be built on the east side of Teron Road and north of March Road, within industrial lands. There are existing subdivisions to the south of March Road that may be affected by stationary noise from the new development.

The proposed development is in the Urban Employment Area, per the City’s Official Plan, and in close proximity to the Highway 417 corridor and is therefore a “Class 1” community area within the City.

2.0 Methodology

This evaluation was conducted within the study area to determine the impact to noise sensitive areas (NSA's) and what mitigation measures, if any, should be incorporated into the site plan design. A Cirrus Research plc Optimus+ integrating sound meter (model CR:162B) was utilized to measure existing sound levels at the proposed development site, March Road, a representative residential site, and a similar representative development within the City of Ottawa to be used as a baseline of the forecast sound emission of the future site.

The assessment was completed in accordance with the City of Ottawa's Environmental Noise Control Guidelines which is used for a new stationary source of noise (noise generating) in proximity to existing or approved noise-sensitive developments. These guidelines define the equivalent sound level criterion for outdoor amenity areas.

Three stationary noise readings were recorded to predict what the sound level will be for the future development. The first measurement was taken at a baseline site for a similar land use (to establish the reasonable sound level emissions of the proposed project). The second and third field measurements were recorded at and in close proximity to the future site to assess the ambient sound levels (existing predevelopment) to allow a comparison of pre- to post-development sound levels.

One hour sound level measurements were recorded at the following locations:

- 5977 Hazeldean Road (baseline similar use building), see **Figure 2**
- The proposed development location, see **Figure 3**
- March Road (roadside to determine the existing roadway noise source), see **Figure 3**
- Bethune Way/Selye Crescent residence (closest residential receiver site), see **Figure 4**



**Figure 2: 5977 Hazeldean Road Noise Meter Recording Location
(Representative Land Use)**



Figure 3: Teron Road and March Road Noise Meter Recording Locations

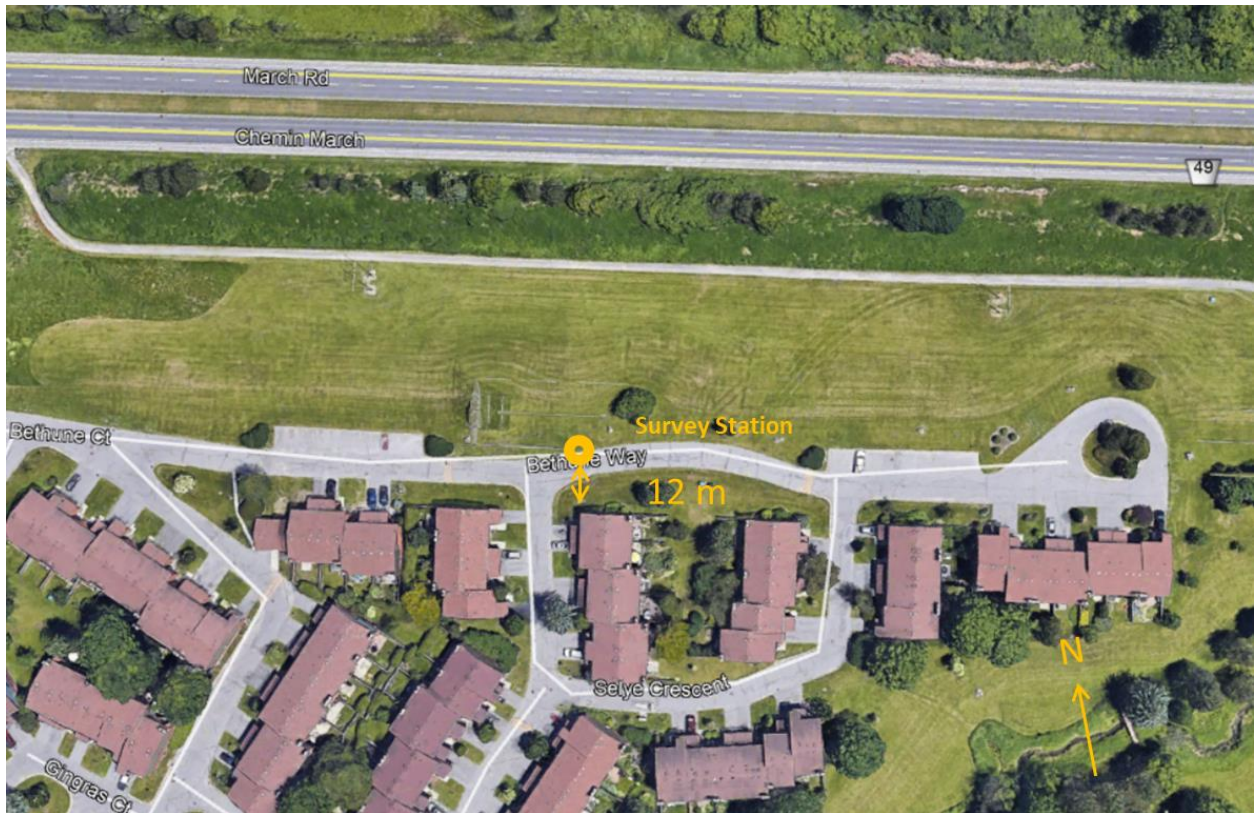


Figure 4: Bethune Way/Selye Crescent Noise Meter Recording Location

3.0 Conclusions and Recommendations

The sound level measurement at the receiver site were recorded as follows:

Table 1: Recorded 1-hour Sound Levels

Location	1-hour Sound Level (Leq (A weighted scale))
5977 Hazeldean (Sample similar land use)	56.5 dBA
1265 Teron Road (Existing, no project)	48.1 dBA
March Road (Existing, no project)	72.8 dBA
Bethune Way/Selye Crescent (existing, no project)	56.5 dBA

The measurement summary reports are included in **Appendix A**.

Based on the noise assessment criteria outlined in the City’s Environmental Control Guidelines, the acceptable equivalent sound-level (Leq) for an outdoor point of reception is 50 dBA from 7:00-23:00 (day-time) and 45 dBA at the plane of window from 23:00-7:00 (night-time).

The adjacent residential noise sensitive area is located at 2 Selye Crescent as illustrated on **Figure 4**. These residential units are the closest noise sensitive area to the development and are separated from the site by March Road. March Road is the closer noise source to these receivers.

Based on the reading obtained at the 5977 Hazeldean Road site, it is reasonable to assume that the new development at 1265 Teron Road will produce a sound level of 56.5 dBA upon construction on site. This would equate to approximately a 0.1 dBA increase at the residential site (based on the distance from the development). Sound level changes less than 3 dBA are imperceptible to the human ear and therefore no change is expected at the residential sites.

The recorded sound levels identified that March Road produces a high level of transportation noise. There is an existing berm at March Road to shield residents from transportation noise that would further reduce sound levels from the proposed development to the noise sensitive land uses.

From an acoustical perspective, noise abatement is not required as part of this project. The offset from the development to the noise sensitive land uses, in combination with the high level of transportation noise produced at March Road and the existing berm at March Road provides sufficient distance to mitigate any adverse effects. At this location the background sound levels are dominated by the urban hum.

In addition, any outdoor air conditioning units associated with the new building will require shielding on the sides facing the noise sensitive land uses, to the southeast.

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Appendix A

Noise Reader Measurement Reports



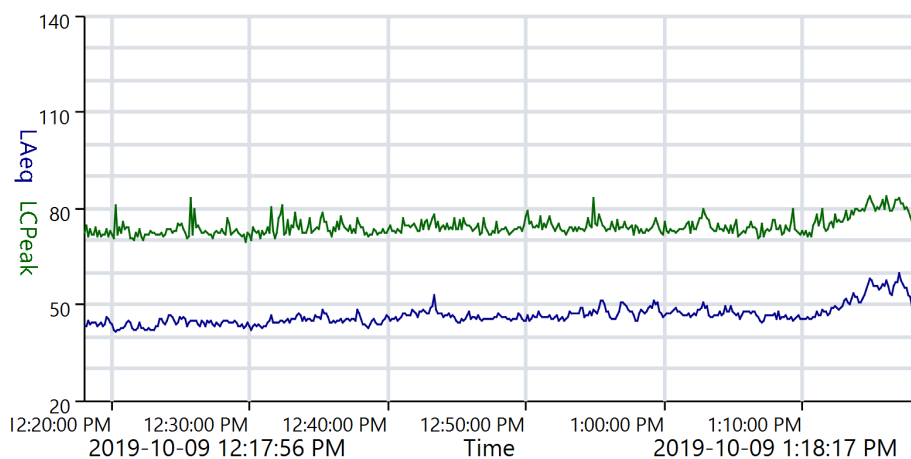
Measurement Summary Report

Name 5
Time 2019-10-09 12:17:56 PM **Person** **Place** **Project**
Duration 01:00:21
Instrument G300933, CR:162B

Calibration

Before 2019-10-09 12:17 PM Offset -0.19 dB **After** 2019-10-09 1:50 PM Offset -0.29 dB

Basic Values		Projected Exposure	
LAeq	48.1 dB	30 Minutes	36.1 dB
LCPeak	83.8 dB	1 Hour	39.1 dB
C-A	14.7 dB	2 Hours	42.1 dB
LEX8	39.1 dB	4 Hours	45.1 dB
LAFMax	63.1 dB	6 Hours	46.9 dB
		8 Hours	48.1 dB
		10 Hours	49.1 dB
		12 Hours	49.9 dB



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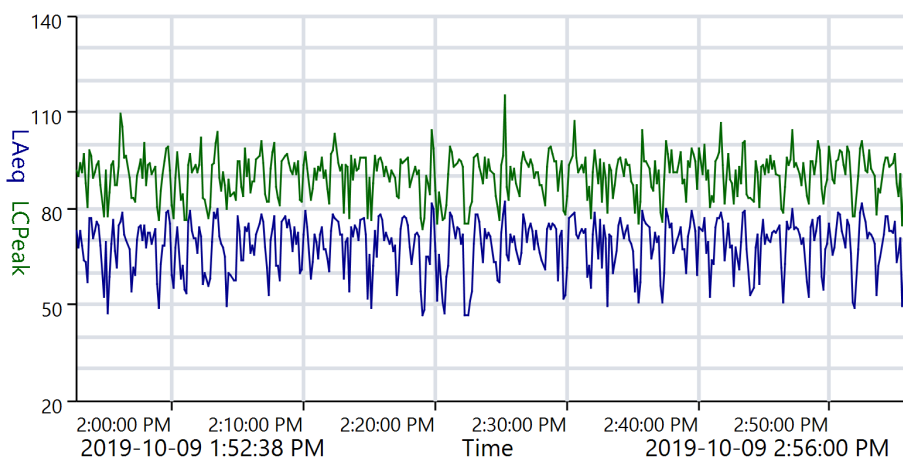
Measurement Summary Report

Name 6
Time 2019-10-09 1:52:38 PM **Person** **Place** **Project**
Duration 01:03:22
Instrument G300933, CR:162B

Calibration

Before 2019-10-09 1:50 PM Offset -0.29 dB **After** 2019-10-09 2:57 PM Offset -0.06 dB

Basic Values		Projected Exposure	
LAeq	72.8 dB	30 Minutes	60.8 dB
LCPeak	115.0 dB	1 Hour	63.8 dB
C-A	4.2 dB	2 Hours	66.8 dB
LEX8	64.0 dB	4 Hours	69.8 dB
LAFMax	93.0 dB	6 Hours	71.6 dB
		8 Hours	72.8 dB
		10 Hours	73.8 dB
		12 Hours	74.6 dB



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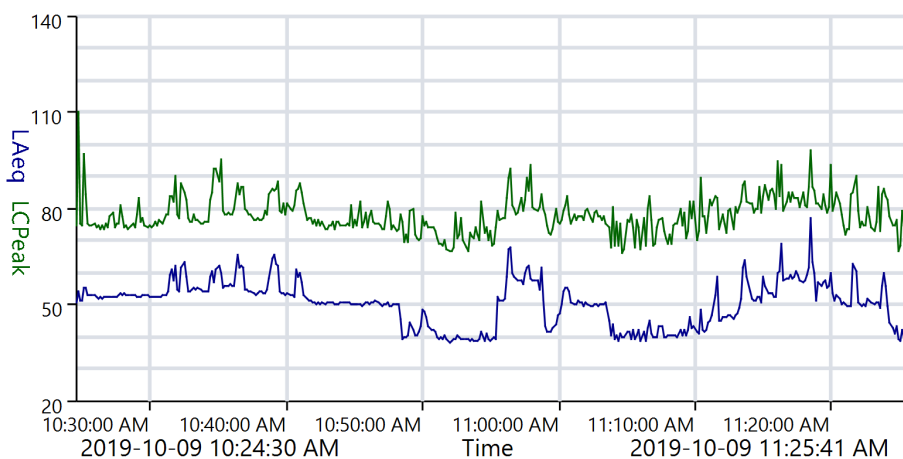
Measurement Summary Report

Name 4
Time 2019-10-09 10:24:30 AM **Person** **Place** **Project**
Duration 01:01:11
Instrument G300933, CR:162B

Calibration

Before 2019-10-09 10:23 AM Offset -0.12 dB **After** 2019-10-09 12:17 PM Offset -0.19 dB

Basic Values		Projected Exposure	
LAeq	56.5 dB	30 Minutes	44.5 dB
LCPeak	98.1 dB	1 Hour	47.5 dB
C-A	10.4 dB	2 Hours	50.5 dB
LEX8	47.6 dB	4 Hours	53.5 dB
LAFMax	83.6 dB	6 Hours	55.3 dB
		8 Hours	56.5 dB
		10 Hours	57.5 dB
		12 Hours	58.3 dB



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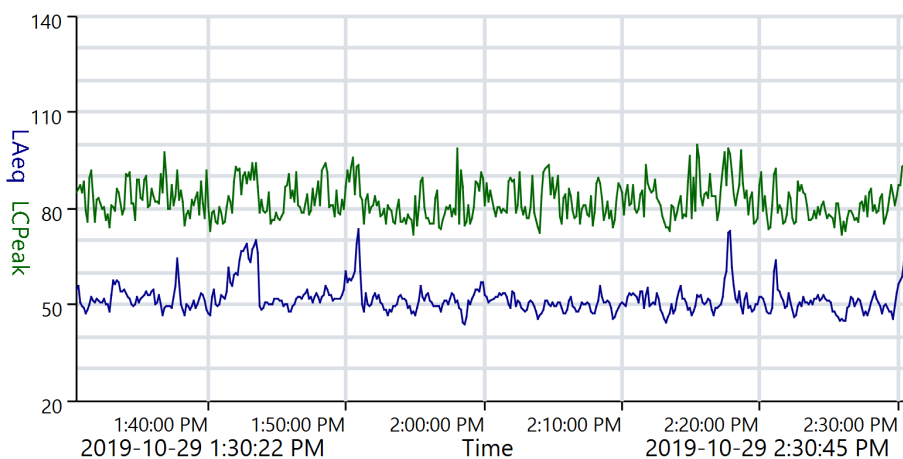
Measurement Summary Report

Name 8
Time 2019-10-29 1:30:22 PM **Person** **Place** **Project**
Duration 01:00:23
Instrument G300933, CR:162B

Calibration

Before 2019-10-29 1:29 PM **Offset** 0.11 dB **After** 2019-10-29 2:31 PM **Offset** -0.29 dB

Basic Values		Projected Exposure	
LAeq	56.5 dB	30 Minutes	44.5 dB
LCPeak	99.7 dB	1 Hour	47.5 dB
C-A	14.7 dB	2 Hours	50.5 dB
LEX8	47.5 dB	4 Hours	53.5 dB
LAFMax	81.9 dB	6 Hours	55.3 dB
		8 Hours	56.5 dB
		10 Hours	57.5 dB
		12 Hours	58.3 dB



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