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# ACOUSTIC ASSESSMENT REPORT

ENVIRONMENTAL COMPLIANCE APPROVAL (ECA)  
2683517 ONTARIO INC.  
633 CORONATION DRIVE  
SCARBOROUGH, ONTARIO



Prepared for  
2683517 Ontario Inc.

August 25, 2020  
File: 20-090

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## EXECUTIVE SUMMARY

Jade Acoustics Inc. has been retained by 2683517 Ontario Inc. to prepare an Acoustic Assessment Report (AAR) in support of the proposed organics processing centre and anaerobic digester facility. This report was prepared to evaluate the acoustic impact of the facility on the neighbouring residential receptors.

The 2683517 Ontario Inc. facility is located at 633 Coronation Drive, Scarborough, Ontario.

The facility is planned to operate continuously 24 hours a day and seven days a week.

Noise sources associated with the facility include, rooftop HVAC units, exhaust fans/stacks, blowers, mixing motors, compressors and truck manoeuvring and loading/unloading operations.

Manufacturers' information and information from Jade Acoustics Inc. files were used to model the facility's predictable worst case scenarios, based on planned operational information provided by the client. The facility was modelled using CadnaA, an MOE approved noise prediction model. Sound level limits were applied based on NPC-300 criteria.

Three worst case receptors to the north, east and west were modelled as representative of all receptors.

Based on the analysis and applicable sound level limits, no mitigation measures are needed for the facility, as the sound level limits are predicted to be achieved.

## 1.0 INTRODUCTION

2683517 Ontario Inc. has retained Jade Acoustics Inc. to prepare an Acoustic Assessment Report (AAR) as required by the Ministry of the Environment, Conservation and Parks (MOE), for their proposed organics processing centre and anaerobic digester facility located at 633 Coronation Drive in Scarborough, Ontario.

This report has been prepared in accordance with the applicable MOE publication, NPC-300.

As required by the MOE, consistency between the air and noise sources identification and naming has been ensured where possible.

The Emission Summary and Dispersion Modelling Report prepared by CHFour Biogas dated December, 2019 was used as the basis for source naming.

This report was prepared to determine if the MOE sound level limits are predicted to be satisfied at the nearby existing residential receptors due to noise sources at the proposed 633 Coronation Drive facility and if not, to recommend additional acoustic mitigation measures to achieve predicted sound level limit compliance.

The 2683517 Ontario Inc. facility is located at 633 Coronation Drive in Scarborough, Ontario. See Figure 1 for a Key Plan. The proposed facility is situated within an existing industrial area and will support an organics processing centre and anaerobic digester operations.

The main noise sources associated with the facility with consideration of the noise sensitive receptors are rooftop HVAC units, exhaust fans/stacks, blowers, mixing motors, compressors, pumps and truck manoeuvring and loading/unloading operations.

The facility is located adjacent to employment industrial land uses to the east, west and north, and utility and transportation land uses to the south. There are residential land uses to the north, east and west of the subject site, beyond the employment industrial land uses. See Figure 2 for a zoning map of the area.

Three residential locations – one to each the east, north and west of the subject site – have been identified as the worst case sensitive receptors and were used to represent all existing residential receptors.

## 2.0 FACILITY DESCRIPTION

The proposed facility is an organic waste transfer and processing station, which consists of an organic processing centre and anaerobic digester operation. The purpose of the operations are waste processing, resources recovery and disposal, as well as the production of renewable natural gas and organic fertilizer.

The organic processing centre is an enclosed building which houses the shipping, receiving and processing operations. The building is to be equipped to mitigate odour escape from the facility and to treat air that is re-circulated into the building or exhausted to the environment via an odour control unit.

The organic processing centre receives materials in several forms via dock receiving, roll-off containers and pumped liquids. The materials are processed in the fully enclosed building and advanced to the anaerobic digestion operation, with unwanted materials extracted from the feed stream and removed from the site. Any additional materials that are not able to be used at the proposed facility due to capacity limitations are also removed from the site and transported to another anaerobic digester facility.

The anaerobic digester operation consists of a series of tanks (hydrolyzer, anaerobic digester) and supporting operations, such as the biogas upgrader, pump house, and heating/electrical buildings. The anaerobic digester operation produces the biogas and organic fertilizer products. The organic fertilizer (digestate) is then provided to the truck filling station to be moved off-site; the biogas is sent to the biogas upgrader in order to create renewable natural gas to be provided to the natural gas pipeline.

There are emergency mechanisms in place to address potential operational issues associated with the operations, such as a pressure release valve and a combustion flare. Additionally, the site will have a stand-by generator to provide back-up power to the site, as necessary.

### 3.0 NOISE SOURCE SUMMARY

As the subject facility is proposed and not currently operational, the assessment of the proposed noise sources and facility as a whole is based on information provided by the client on the intended operations.

Based on the information provided, the facility is intended to operate continuously – 24 hours a day, seven days a week. Some specific facility operations are intended to occur only during daytime hours.

The noise source and facility design information provided by the client indicates that all noise sources associated with the organic processing centre (with the exception of select truck loading/unloading activities, rooftop HVAC and exhaust stacks) are located indoors. Conversely, the anaerobic digestion operations involve several noise sources located outdoors.

There are sources of both continuous and impulsive noise associated with the proposed facility.

The significant continuous and impulsive noise sources associated with the proposed facility are as follows. The sound power levels applicable to the below noted noise sources are shown in Table A. The source numbering shown in Table A reflects the numbering convention used in the ESDM report, as applicable.

#### Organic Processing Centre

- Truck manoeuvring;
- Loading/unloading operations;
- Exhaust stacks; and
- Rooftop heat/cool units.

#### Anaerobic Digester and Associated Area

- Rooftop heat/cool units;
- Ventilation fans;
- Mixing motors;

- Exhaust stacks;
- Biogas upgrader area (blowers, pump, compressor); and
- Flare/burner.

See Appendix A for sound level information for the above noted noise sources. Where manufacturer information was not available, information from Jade Acoustics Inc. files for similar facilities has been used as representative.

A list of insignificant and emergency noise sources is included in Appendix B.

## 4.0 ASSESSMENT CRITERIA (SOUND LEVEL LIMITS)

The MOE guideline NPC-300 “Environmental Noise Guidelines Stationary and Transportation Sources – Approval and Planning“, August, 2013 (updated final Version # 22) was used in this assessment.

The guideline for Class 1 areas (applicable to the subject facility and surrounding areas) limits the sounds from the facility, not to exceed the existing ambient sound level (Leq) generally due to road traffic in any hour of operation, or the MOE exclusion limits of:

Plane of window of Noise Sensitive Space

- 50 dBA/dBAI in any hour from 07:00 to 23:00; and
- 45 dBA/dBAI in any hour from 23:00 to 07:00.

Outdoor Points of Reception

- 50 dBA/dBAI in any hour from 07:00 to 23:00.

As the proposed facility is located in an existing industrial area with several existing facilities operating under valid Environmental Compliance Approvals (ECAs), the MOE guidelines also permit the use of the existing ambient sound level generated by these facilities within the respective time period (day/evening/night) as the applicable sound level limits. The ambient sound levels have not been investigated at this time and the above noted Class 1 Area sound level limits have been used to assess the proposed facility.

The MOE exclusion sound level limits for emergency equipment testing is 5 dBA greater than the exclusion limits noted above.

The MOE recognizes the need for back-up beepers/alarms as safety devices and as such does not have any guidelines or criteria to address these sources.

It should be noted that the MOE guidelines do not require that the source be inaudible, but rather that specific sound level limits be achieved.

## 5.0 IMPACT ASSESSMENT

### 5.1 Receptors

The worst case receptors are existing residential lots located to the west of the facility on Manse Road and Coronation Drive, to the north of the facility on Woodgrove Drive, Bennett Road and Ravenview Drive, as well as to the east of the facility on the south side of Coronation Drive. See Figure 3 for receptor locations.

A summary of the three representative worst case residential receptors investigated is given below. The receptor numbering convention is as shown on Figure 3.

- Receptors 1 and 2 - two storey residential dwelling on Bennet Road and associated OLA;
- Receptors 3 and 4 - two storey residential dwelling on Coronation Drive (to the west of the facility) and associated OLA; and
- Receptors 5 and 6 - two storey residential dwelling on Coronation Drive (to the east of the facility) and associated OLA.

An additional receptor has been modelled alongside the above noted receptors, to assess the associated outdoor living area, as per MOE requirements.

Sound level limit compliance at the worst case residential receptors noted above will result in sound level limit compliance at all other existing residential receptors.

### 5.2 Noise Sources

MOE publication NPC-300 requires the assessment of the “predictable worse case noise impact” of the following activities (as noted on Page 16 of NPC-300).

1. Regular, routine operations of equipment;
2. Infrequent operations of equipment; and
3. Operation of emergency equipment for testing or maintenance purposes.

Both impulsive and continuous sources are proposed at the subject facility and are included in this analysis.

No sources of potential ground-borne vibration impact on the sensitive receptors exist within the facility.

Sound power level information from equipment manufacturers was used where available; in other cases, information from Jade Acoustics Inc. files for similar equipment at similar facilities has been used as representative, in the absence of specific information.

Sound power level information for tractor trailer manoeuvring, tractor trailer loading and unloading impulses taken from information in Jade's files on other projects was considered applicable for this noise assessment.

For audible tonal sound, the MOE guideline states that the one hour equivalent sound level is subject to an adjustment upwards of 5 dB to account for annoyance, as given in Publication NPC-104 "Sound Level Adjustment". For quasi-steady sound, a penalty of 10 dB applies. None of the sources were found to be tonal or quasi-steady.

Table A summarizes all significant noise sources associated with the proposed facility.

Appendix C contains sound power level calculations and a summary of the noise sources.

A complete list of acoustically insignificant and emergency noise sources are also outlined in Appendix B.

## 6.0 ASSESSMENT OF COMPLIANCE AND ACOUSTIC MODELLING

As required by the MOE, the following three scenarios were modelled for the predictable worst case:

1. Continuous noise source operations – all continuous noise sources operating at the same time, together with truck manoeuvring;
2. Impulsive noise source operations – tractor trailer loading and unloading operations; and
3. Maintenance testing of the emergency backup generator during the daytime hours.

The MOE approved CadnaA (Version 2020 MR1) computer noise prediction model is based upon International Standard Analytical Code ISO 9613-2 and was used in this assessment.

In accordance with the model, the following factors were included in the analysis:

- correction for distance;
- correction for ground absorption; and
- correction for air absorption.

The noise sources at the proposed facility were modelled based on the manufacturer sound power level information and other information included in Jade Acoustics Inc. files. See Figure 4 for a plan of the facility and the noise sources investigated. See Tables C-1 to C-5 for a summary of the predicted sound levels at the critical residential receptors.

Where a particular equipment model has not been chosen at this time, the analysis accounts for a similar unit with a representative sound power level.

It should be noted that while Stack P6a/b (emergency flare) is an emergency measure included in the process design, it is also used during start-up activities and has therefore been included in the continuous noise source predictable worst case scenario.

Appendix C contains a summary of the acoustic modelling parameters for the facility.

It is predicted that the sound level limits will be achieved for the three predictable worst case scenarios investigated. See Tables D-1 to D-5

## 7.0 CONCLUSIONS

As noted in Section 4.0, the exclusion sound level limits of NPC-300 (Class 1 Area) were used in this assessment.

Based on the analysis, sound level limit compliance is predicted at all surrounding sensitive receptors.

Respectfully submitted,

JADE ACOUSTICS INC.

Per:

  
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Per:

  
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MB/CK/jg

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## 8.0 REFERENCES

1. "Model Municipal Noise Control By-Law", Final Report, by the Ontario Ministry of the Environment, August, 1978.
2. "Environmental Noise Guideline Stationary and Transportation Sources – Approval and Planning", Ontario Ministry of the Environment, Publication NPC-300, August, 2013, Final Version # 22.
3. Publication NPC-233: Information to be submitted for Approval of Stationary Sources of Sound, 1995.
4. Publication NPC-104: Sound Level Adjustments, August, 1978.
5. Publication NPC-103: Procedures, August, 1978.
6. "Emission Summary and Dispersion Modelling ESDM Report (AERMOD with Site-Specific Meteorological Data)", CHFour Biogas Inc., December, 2019.

**TABLE A**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**NOISE SOURCE SUMMARY TABLE**

Source ID <sup>(1)</sup>	Source Description	Sound Power Level (dBA/dBAI)	Source Location <sup>(2)</sup>	Sound Characteristics <sup>(3)</sup>	Noise Control Measures <sup>(4)</sup>
Stack P1	Odour Control for Organics Processing Centre Facility	105	R	S	U
Stack P2	Natural Gas Boilers for Organics Processing Centre Facility	104	R	S	U
Stack P3a	Natural Gas Boiler for Hydrolyzer Tanks	96	R	S	U
Stack P3b	Natural Gas Boiler for Hydrolyzer Tanks	96	R	S	U
Stack P4a	Natural Gas Boiler for Anaerobic Digesters	96	R	S	U
Stack P4b	Natural Gas Boiler for Anaerobic Digesters	96	R	S	U
Stack P6a	Flare – bottom (during start-up operations)	95	G	S	U
Stack P6b	Flare – top (during start-up operations)	94	G	S	U
SUMA_1	Hydrolyzer Tank Mixing Motor	75	W	S	U
SUMA_2	Hydrolyzer Tank Mixing Motor	75	W	S	U
SUMA_3	Anaerobic Digester Mixing Motor	75	W	S	U

- (1) See Figure 4.
- (2) Source Location: G - Source located at grade; R – Source located on rooftop; W - Source mounted in wall.
- (3) Sound Characteristics: S – Steady; Q – Quasi steady impulsive; I – Impulsive; B – Buzzing; T-Tonal; C – Cyclic.
- (4) Noise Control Measures: S – Silencer, acoustic louver; A – Acoustic lining, plenum; B1 – Rooftop Barrier; L – Lagging; E – Acoustic enclosure; U – Uncontrolled.

**TABLE A – Continued**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**NOISE SOURCE SUMMARY TABLE**

Source ID <sup>(1)</sup>	Source Description	Sound Power Level (dBA/dBAI)	Source Location <sup>(2)</sup>	Sound Characteristics <sup>(3)</sup>	Noise Control Measures <sup>(4)</sup>
SUMA_4	Anaerobic Digester Mixing Motor	75	W	S	U
SUMA_5	Anaerobic Digester Mixing Motor	75	W	S	U
SUMA_6	Anaerobic Digester Mixing Motor	75	W	S	U
EF_1	Electrical Container Exhaust Fan	82	W	S	U
EF_2	Heating Container Exhaust Fan	82	W	S	U
EF_3	Heating Container Exhaust Fan	82	W	S	U
EF_4	Pump House Exhaust Fan	82	W	S	U
EF_5	Pump House Exhaust Fan	82	W	S	U
York3_1	Electrical Container HVAC	80	R	S	U

- (1) See Figure 4.
- (2) Source Location: G - Source located at grade; R – Source located on rooftop; W - Source mounted in wall.
- (3) Sound Characteristics: S – Steady; Q – Quasi steady impulsive; I – Impulsive; B – Buzzing; T-Tonal; C – Cyclic.
- (4) Noise Control Measures: S – Silencer, acoustic louver; A – Acoustic lining, plenum; B1 – Rooftop Barrier; L – Lagging; E – Acoustic enclosure; U – Uncontrolled.

**TABLE A – Continued**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**NOISE SOURCE SUMMARY TABLE**

Source ID <sup>(1)</sup>	Source Description	Sound Power Level (dBA/dBAI)	Source Location <sup>(2)</sup>	Sound Characteristics <sup>(3)</sup>	Noise Control Measures <sup>(4)</sup>
York3_2	Heating Container HVAC	80	R	S	U
York3_3	Heating Container HVAC	80	R	S	U
York5	Office HVAC	84	R	S	U
GENSET	Backup Generator	116	G	S	E
LOAD_#	Loading/Unloading Impulses	111	G	I	U
GAS_UP	Biogas Upgrader Area	98	G	S	U
TRUCK_#	Truck Manoeuvring	99	G	S	U

- (1) See Figure 4.
- (2) Source Location: G - Source located at grade; R – Source located on rooftop; W – Source mounted in wall.
- (3) Sound Characteristics: S – Steady; Q – Quasi steady impulsive; I – Impulsive; B – Buzzing; T- Tonal; C – Cyclic.
- (4) Noise Control Measures: S – Silencer, acoustic louver; A – Acoustic lining, plenum; B1 – Rooftop Barrier; L – Lagging; E – Acoustic enclosure; U – Uncontrolled.

**TABLE B**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**PERFORMANCE LIMITS SUMMARY TABLE**

Point of Reception (POR) ID	MOE Designation	Performance Limits (dBA/dBAI)*	
		Daytime (07:00 to 23:00)	Nighttime (23:00 to 07:00)
R1	CLASS 1	50	45
R2**	CLASS 1	50	N/A
R3	CLASS 1	50	45
R4**	CLASS 1	50	N/A
R5	CLASS 1	50	45
R6**	CLASS 1	50	N/A

\* See Section 4.0 for details.

\*\* Outdoor living area receptor associated with the respective dwelling façade receptor.

**TABLE C-1**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**POINT OF RECEPTION NOISE IMPACT TABLE WITHOUT ADDITIONAL MITIGATION MEASURES –  
DAYTIME CONTINUOUS NOISE SOURCES**

Source ID	Receptor R1		Receptor R2		Receptor R3		Receptor R4		Receptor 5		Receptor 6	
	Approximate Distance to R1 (m)	Sound Level (Leq/dBA)	Approximate Distance to R2 (m)	Sound Level (Leq/dBA)	Approximate Distance to R3 (m)	Sound Level (Leq/dBA)	Approximate Distance to R4 (m)	Sound Level (Leq/dBA)	Approximate Distance to R5 (m)	Sound Level (Leq/dBA)	Approximate Distance to R6 (m)	Sound Level (Leq/dBA)
EF_1	531	9	505	8	987	1	968	1	461	4	448	1
EF-2	518	9	491	8	981	3	963	3	455	2	443	0
EF-3	555	0	529	0	1013	0	995	0	453	7	439	1
EF_4	513	1	485	0	1009	2	991	2	416	12	403	5
EF_5	516	4	488	2	1019	2	1001	2	416	12	403	5
Stack P1	465	33	438	33	971	25	953	25	421	33	412	33
Stack P2	457	31	430	31	962	24	944	24	426	32	418	32
Stack P3a	519	18	492	18	982	26	963	27	455	17	443	19
Stack P3b	519	17	493	15	982	26	964	26	455	17	443	19

**TABLE C-1 - Continued**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**POINT OF RECEPTION NOISE IMPACT TABLE WITHOUT ADDITIONAL MITIGATION MEASURES –  
DAYTIME CONTINUOUS NOISE SOURCES**

Source ID	Receptor R1		Receptor R2		Receptor R3		Receptor R4		Receptor 5		Receptor 6	
	Approximate Distance to R1 (m)	Sound Level (Leq/dBA)	Approximate Distance to R2 (m)	Sound Level (Leq/dBA)	Approximate Distance to R3 (m)	Sound Level (Leq/dBA)	Approximate Distance to R4 (m)	Sound Level (Leq/dBA)	Approximate Distance to R5 (m)	Sound Level (Leq/dBA)	Approximate Distance to R6 (m)	Sound Level (Leq/dBA)
Stack P4a	555	12	529	13	1011	8	993	8	455	22	441	14
Stack P4b	556	12	529	13	1012	8	994	8	455	22	440	14
Stack P6a	569	22	542	21	1004	16	986	16	479	21	464	14
Stack P6b	569	22	542	22	1004	16	986	16	479	30	464	23

**TABLE C-2**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**POINT OF RECEPTION NOISE IMPACT TABLE WITHOUT ADDITIONAL MITIGATION MEASURES –  
EVENING CONTINUOUS NOISE SOURCES**

Source ID	Receptor R1		Receptor R2		Receptor R3		Receptor R4		Receptor 5		Receptor 6	
	Approximate Distance to R1 (m)	Sound Level (Leq/dBA)	Approximate Distance to R2 (m)	Sound Level (Leq/dBA)	Approximate Distance to R3 (m)	Sound Level (Leq/dBA)	Approximate Distance to R4 (m)	Sound Level (Leq/dBA)	Approximate Distance to R5 (m)	Sound Level (Leq/dBA)	Approximate Distance to R6 (m)	Sound Level (Leq/dBA)
EF_1	531	9	505	8	987	1	968	1	461	4	448	1
EF-2	518	9	491	8	981	3	963	3	455	2	443	0
EF-3	555	0	529	0	1013	0	995	0	453	7	439	1
EF_4	513	1	485	0	1009	2	991	2	416	12	403	5
EF_5	516	4	488	2	1019	2	1001	2	416	12	403	5
Stack P1	465	33	438	33	971	25	953	25	421	33	412	33
Stack P2	457	31	430	31	962	24	944	24	426	32	418	32
Stack P3a	519	18	492	18	982	26	963	27	455	17	443	19
Stack P3b	519	17	493	15	982	26	964	26	455	17	443	19

**TABLE C-2 – Continued**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**POINT OF RECEPTION NOISE IMPACT TABLE WITHOUT ADDITIONAL MITIGATION MEASURES –  
EVENING CONTINUOUS NOISE SOURCES**

Source ID	Receptor R1		Receptor R2		Receptor R3		Receptor R4		Receptor 5		Receptor 6	
	Approximate Distance to R1 (m)	Sound Level (Leq/dBA)	Approximate Distance to R2 (m)	Sound Level (Leq/dBA)	Approximate Distance to R3 (m)	Sound Level (Leq/dBA)	Approximate Distance to R4 (m)	Sound Level (Leq/dBA)	Approximate Distance to R5 (m)	Sound Level (Leq/dBA)	Approximate Distance to R6 (m)	Sound Level (Leq/dBA)
Stack P4a	555	12	529	13	1011	8	993	8	455	22	441	14
Stack P4b	556	12	529	13	1012	8	994	8	455	22	440	14
Stack P6a	569	22	542	21	1004	16	986	16	479	21	464	14
Stack P6b	569	22	542	22	1004	16	986	16	479	30	464	23

**TABLE C-3**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**POINT OF RECEPTION NOISE IMPACT TABLE WITHOUT ADDITIONAL MITIGATION MEASURES –  
NIGHTTIME CONTINUOUS NOISE SOURCES**

Source ID	Receptor R1		Receptor R2		Receptor R3		Receptor R4		Receptor R5		Receptor R6	
	Approximate Distance to R1 (m)	Sound Level (Leq/dBA)	Approximate Distance to R2 (m)	Sound Level (Leq/dBA)	Approximate Distance to R3 (m)	Sound Level (Leq/dBA)	Approximate Distance to R4 (m)	Sound Level (Leq/dBA)	Approximate Distance to R5 (m)	Sound Level (Leq/dBA)	Approximate Distance to R6 (m)	Sound Level (Leq/dBA)
EF_1	531	9	505	8	987	1	968	1	461	4	448	1
EF_2	518	9	491	8	981	3	963	3	455	2	443	0
EF_3	555	0	529	0	1013	0	995	0	453	7	439	1
EF_4	513	1	485	0	1009	2	991	2	416	12	403	5
EF_5	516	4	488	2	1019	2	1001	2	406	12	393	5
Stack P1	465	33	438	33	971	25	953	25	421	33	412	33
Stack P2	457	31	430	31	962	24	944	24	426	32	418	32
Stack P3a	519	18	492	18	982	26	963	27	455	17	443	19
Stack P3b	519	17	493	15	982	26	964	26	455	17	443	19
Stack P4a	555	12	529	13	1011	8	993	8	455	22	441	14
Stack P4b	556	12	529	13	1012	8	994	8	455	22	440	14

**TABLE C-3 - Continued**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**POINT OF RECEPTION NOISE IMPACT TABLE WITHOUT ADDITIONAL MITIGATION MEASURES –  
NIGHTTIME CONTINUOUS NOISE SOURCES**

Source ID	Receptor R1		Receptor R2		Receptor R3		Receptor R4		Receptor R5		Receptor R6	
	Approximate Distance to R1 (m)	Sound Level (Leq/dBA)	Approximate Distance to R2 (m)	Sound Level (Leq/dBA)	Approximate Distance to R3 (m)	Sound Level (Leq/dBA)	Approximate Distance to R4 (m)	Sound Level (Leq/dBA)	Approximate Distance to R5 (m)	Sound Level (Leq/dBA)	Approximate Distance to R6 (m)	Sound Level (Leq/dBA)
Stack P6a	569	22	542	21	1004	16	986	16	479	21	464	14
Stack P6b	569	22	542	22	1004	16	986	16	479	30	464	23
SUMA_1	545	0	519	0	1000	0	982	0	459	0	445	0
SUMA_2	518	0	491	0	997	0	979	0	435	0	423	0
SUMA_3	514	0	487	0	1000	0	982	0	428	0	416	0
SUMA_4	524	0	496	0	1032	0	1014	0	397	6	384	0
SUMA_5	560	0	532	0	1030	0	1012	0	437	0	422	0
SUMA_6	561	0	534	0	1037	0	1019	0	430	0	415	0
York3_1	536	8	510	8	989	1	971	1	462	11	449	5
York3_2	521	0	495	0	983	2	965	2	455	10	443	5
York3_3	554	8	527	8	1008	1	990	1	459	10	444	3
York5	434	20	407	21	964	13	946	13	407	21	400	21
TRUCK_1	417	0	388	0	1001	0	983	0	350	0	345	0
TRUCK_2	425	33	397	32	983	20	965	22	378	34	371	35
GAS_UP	501	13	473	11	1017	15	999	15	394	27	383	20

**TABLE C-4**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**POINT OF RECEPTION NOISE IMPACT TABLE WITHOUT ADDITIONAL MITIGATION MEASURES – IMPULSIVE NOISE SOURCES**

Source ID*	Receptor R1		Receptor R2		Receptor R3		Receptor R4		Receptor R5		Receptor R6	
	Approximate Distance to R1 (m)	Sound Level (Leq/dBA)	Approximate Distance to R2 (m)	Sound Level (Leq/dBA)	Approximate Distance to R3 (m)	Sound Level (Leq/dBA)	Approximate Distance to R4 (m)	Sound Level (Leq/dBA)	Approximate Distance to R5 (m)	Sound Level (Leq/dBA)	Approximate Distance to R6 (m)	Sound Level (Leq/dBA)
LOAD_1	423	32	395	31	961	30	943	31	403	33	397	37
LOAD_2	424	32	397	30	965	30	947	31	400	33	394	37
LOAD_3	425	33	397	31	968	30	950	30	396	33	390	37
LOAD_4	426	33	398	32	971	30	953	30	393	33	387	36
LOAD_5	427	33	399	32	975	30	957	30	390	33	383	36

NOTE: Day, evening, and nighttime period predicted impulsive sound levels are equal.

\* See Section 5.2 for details.

**TABLE C-4 - Continued**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**POINT OF RECEPTION NOISE IMPACT TABLE WITHOUT ADDITIONAL MITIGATION MEASURES – IMPULSIVE NOISE SOURCES**

Source ID*	Receptor R1		Receptor R2		Receptor R3		Receptor R4		Receptor R5		Receptor R6	
	Approximate Distance to R1 (m)	Sound Level (Leq/dBA)	Approximate Distance to R2 (m)	Sound Level (Leq/dBA)	Approximate Distance to R3 (m)	Sound Level (Leq/dBA)	Approximate Distance to R4 (m)	Sound Level (Leq/dBA)	Approximate Distance to R5 (m)	Sound Level (Leq/dBA)	Approximate Distance to R6 (m)	Sound Level (Leq/dBA)
LOAD_6	429	33	401	31	978	30	960	30	386	33	380	36
LOAD_7	430	32	402	31	981	30	963	30	383	33	377	35
LOAD_8	432	32	403	30	985	30	967	30	380	33	373	35
LOAD_9	432	32	404	30	988	29	970	29	376	33	370	35
LOAD_10	434	32	406	30	994	29	976	29	370	33	363	35

NOTE: Day, evening, and nighttime period predicted impulsive sound levels are equal.

\* See Section 5.2 for details.

**TABLE C-5**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**POINT OF RECEPTION NOISE IMPACT TABLE WITHOUT ADDITIONAL MITIGATION MEASURES – EMERGENCY EQUIPMENT  
MAINTENANCE TESTING**

Source ID*	Receptor R1		Receptor R2		Receptor R3		Receptor R4		Receptor R5		Receptor R6	
	Approximate Distance to R1 (m)	Sound Level (Leq/dBA)	Approximate Distance to R2 (m)	Sound Level (Leq/dBA)	Approximate Distance to R3 (m)	Sound Level (Leq/dBA)	Approximate Distance to R4 (m)	Sound Level (Leq/dBA)	Approximate Distance to R5 (m)	Sound Level (Leq/dBA)	Approximate Distance to R6 (m)	Sound Level (Leq/dBA)
GENSET	494	33	466	32	1026	30	1008	30	376	47	365	44

**TABLE D-1**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**ACOUSTIC ASSESSMENT SUMMARY TABLE**  
**DAYTIME CONTINUOUS NOISE SOURCE**

<b>Point of Reception (POR) ID</b>	<b>Point of Reception Description</b>	<b>Predicted Sound Level at POR Without Mitigation (Leq/dBA)</b>	<b>Performance Limits (Leq/dBA)</b>	<b>Compliance with Performance Limits</b>
R1	Bennett Road 2 <sup>nd</sup> Floor Receptor	38	50	Yes
R2	OLA Associated with R1	37	50	Yes
R3	Coronation Drive 2 <sup>nd</sup> Floor Receptor	32	50	Yes
R4	OLA Associated with R3	32	50	Yes
R5	Coronation Drive 2 <sup>nd</sup> Floor Receptor	39	50	Yes
R6	OLA Associated with R5	38	50	Yes

See Section 4.0 and Conclusions re: performance limits and compliance.

**TABLE D-2**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**ACOUSTIC ASSESSMENT SUMMARY TABLE**  
**EVENING CONTINUOUS NOISE SOURCE**

<b>Point of Reception (POR) ID</b>	<b>Point of Reception Description</b>	<b>Predicted Sound Level at POR Without Mitigation (Leq/dBA)</b>	<b>Performance Limits (Leq/dBA)</b>	<b>Compliance with Performance Limits</b>
R1	Bennett Road 2 <sup>nd</sup> Floor Receptor	38	50	Yes
R2	OLA Associated with R1	37	50	Yes
R3	Coronation Drive 2 <sup>nd</sup> Floor Receptor	32	50	Yes
R4	OLA Associated with R3	32	50	Yes
R5	Coronation Drive 2 <sup>nd</sup> Floor Receptor	39	50	Yes
R6	OLA Associated with R5	38	50	Yes

See Section 4.0 and Conclusions re: performance limits and compliance.

**TABLE D-3**  
**ACOUSTIC ASSESSMENT REPORT**  
**2683517 ONTARIO INC.**  
**633 CORONATION DRIVE**  
**SCARBOROUGH, ONTARIO**

**ACOUSTIC ASSESSMENT SUMMARY TABLE**  
**NIGHTTIME CONTINUOUS NOISE SOURCE**

<b>Point of Reception (POR) ID</b>	<b>Point of Reception Description</b>	<b>Predicted Sound Level at POR Without Mitigation (Leq/dBA)</b>	<b>Performance Limits (Leq/dBA)</b>	<b>Compliance with Performance Limits</b>
R1	Bennett Road 2 <sup>nd</sup> Floor Receptor	38	45	Yes
R2	OLA Associated with R1	37	N/A	N/A
R3	Coronation Drive 2 <sup>nd</sup> Floor Receptor	32	45	Yes
R4	OLA Associated with R3	32	N/A	N/A
R5	Coronation Drive 2 <sup>nd</sup> Floor Receptor	39	45	Yes
R6	OLA Associated with R5	38	N/A	N/A

See Section 4.0 and Conclusions re: performance limits and compliance.

**TABLE D-4**

**ACOUSTIC ASSESSMENT REPORT**

**2683517 ONTARIO INC.**

**633 CORONATION DRIVE**

**SCARBOROUGH, ONTARIO**

**ACOUSTIC ASSESSMENT SUMMARY TABLE  
IMPULSIVE NOISE SOURCE**

Point of Reception (POR) ID	Point of Reception Description	Predicted Sound Level at POR Without Mitigation (Leq/dBA)	Performance Limits (Leq/dBA)*			Compliance with Performance Limits*		
			D	E	N	D	E	N
R1	Bennett Road 2 <sup>nd</sup> Floor Receptor	42	50	50	45	Yes	Yes	Yes
R2	OLA Associated with R1	41	50	50	N/A	Yes	Yes	N/A
R3	Coronation Drive 2 <sup>nd</sup> Floor Receptor	40	50	50	45	Yes	Yes	Yes
R4	OLA Associated with R3	40	50	50	N/A	Yes	Yes	N/A
R5	Coronation Drive 2 <sup>nd</sup> Floor Receptor	43	50	50	45	Yes	Yes	Yes
R6	OLA Associated with R5	46	50	50	N/A	Yes	Yes	N/A

\* Daytime (D): 7:00 a.m. to 7:00 p.m.  
 Evening (E): 7:00 p.m. to 11:00 p.m.  
 Night (N): 11:00 p.m. to 7:00 a.m.

See Section 4.0 and Conclusions re: performance limits and compliance.

**TABLE D-5**

**ACOUSTIC ASSESSMENT REPORT**

**2683517 ONTARIO INC.**

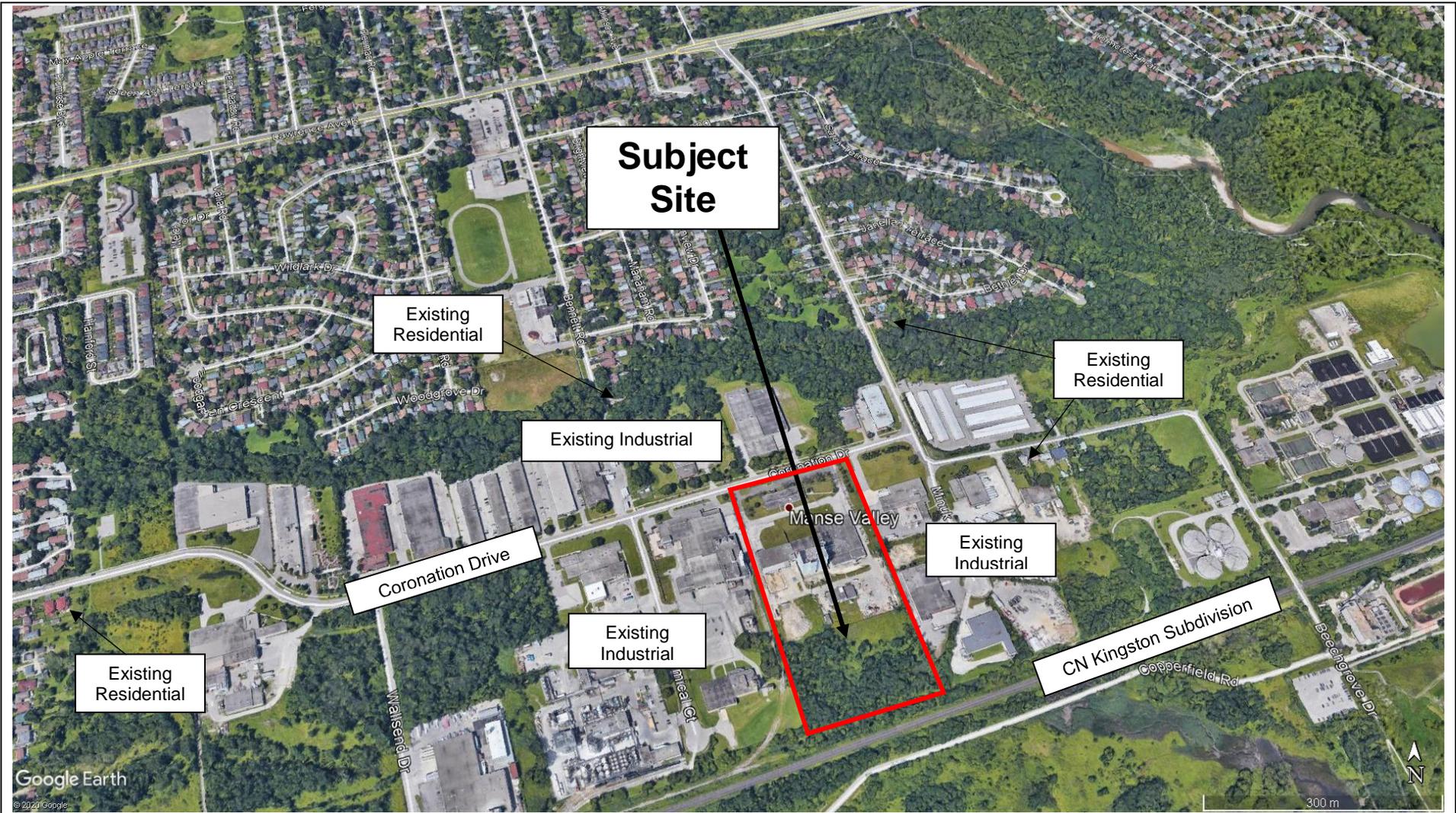
**633 CORONATION DRIVE**

**SCARBOROUGH, ONTARIO**

**ACOUSTIC ASSESSMENT SUMMARY TABLE  
EMERGENCY EQUIPMENT MAINTENANCE TESTING**

<b>Point of Reception (POR) ID</b>	<b>Point of Reception Description</b>	<b>Predicted Sound Level at POR Without Mitigation (Leq/dBA)</b>	<b>Performance Limits (Leq/dBA)</b>	<b>Compliance with Performance Limits</b>
R1	Bennett Road 2 <sup>nd</sup> Floor Receptor	33	50	Yes
R2	OLA Associated with R1	32	50	Yes
R3	Coronation Drive 2 <sup>nd</sup> Floor Receptor	30	50	Yes
R4	OLA Associated with R3	30	50	Yes
R5	Coronation Drive 2 <sup>nd</sup> Floor Receptor	47	50	Yes
R6	OLA Associated with R5	44	50	Yes

See Section 4.0 and Conclusions re: performance limits and compliance. The maintenance testing of emergency equipment is anticipated to occur during daytime hours only (7:00 a.m. to 11:00 p.m.).



N.T.S.

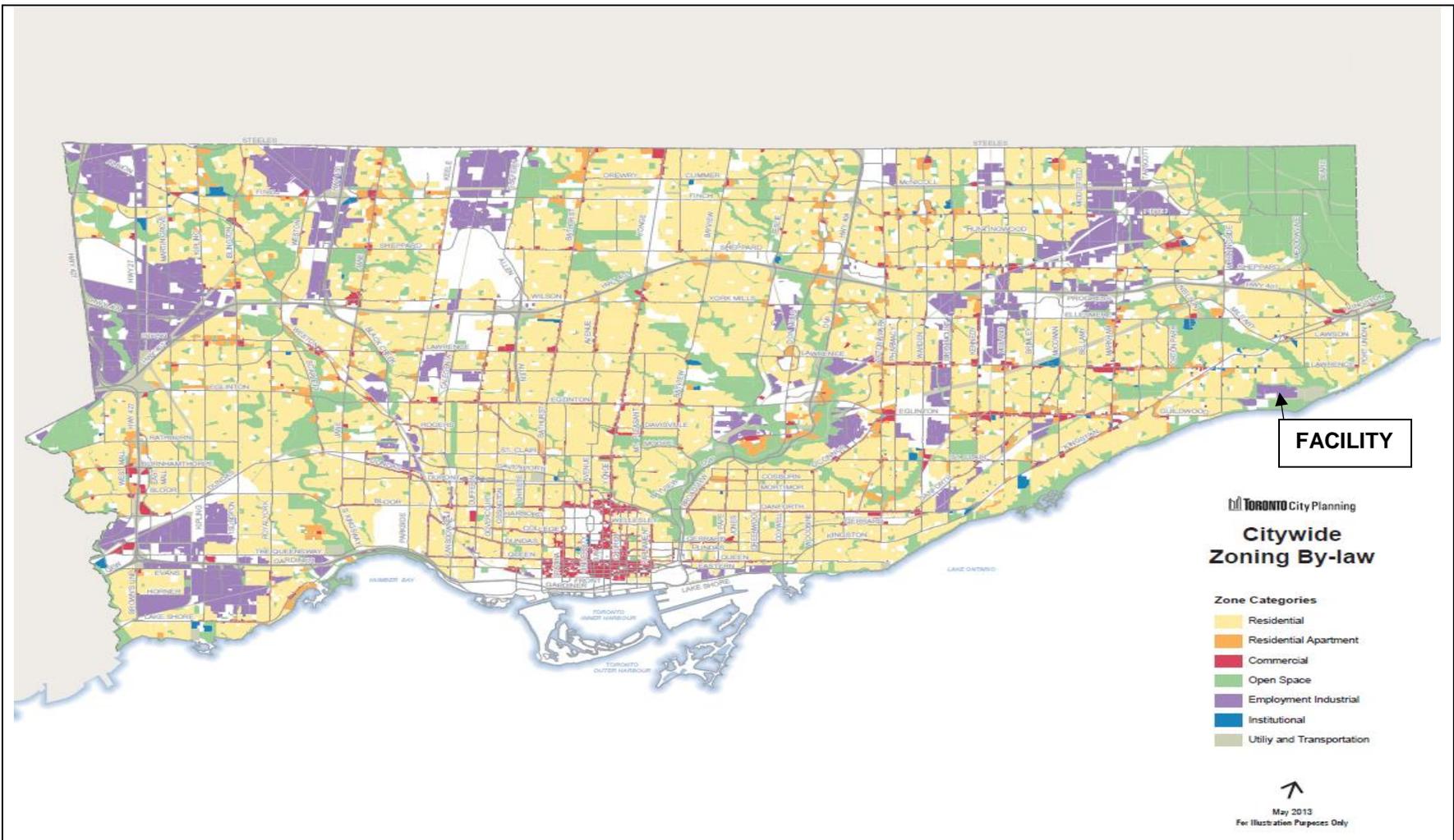
**Acoustic Assessment Report**  
**2683517 Ontario Inc.**  
**633 Coronation Drive**  
**City of Scarborough**

**Date: August 2020**

**File: 20-090**

**KEY PLAN**  
**FIGURE 1**





**Acoustic Assessment Report**  
**2683517 Ontario Inc.**  
**633 Coronation Drive**  
**City of Scarborough**

**Date: August 2020**

**File: 20-090**

**ZONING MAP**  
**SHOWING FACILITY**  
**LOCATION**

**FIGURE 2**

