SS Wilson Associates
CONSULTING & ENGINEERING

REPORT NO. WA26-015

DETAILED NOISE AND VIBRATION FEASIBILITY STUDY
PROPOSED INDUSTRIAL DEVELOPMENT
4495 NORTH SERVICE ROAD
BURLINGTON, ON

SUBMITTED TO:
Dream Summit Industrial (1250 Appleby Line) LP
1250 Appleby Line
Burlington, ON

PREPARED BY:

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June 25, 2026

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1.0 Introduction

1.1 General

SS Wilson Associates (SSWA) was retained by Dream Summit Industrial (1250 Appleby Line) LP to prepare this Noise and Vibration Feasibility Study in support of a proposed industrial development located at 4495 North Service Road in the City of Burlington, Ontario.

The proposed development consists of two single-storey industrial buildings, identified as Building A and Building B, with associated office areas, loading facilities, truck courts, parking areas, and rooftop mechanical equipment. The subject site is located west of Appleby Line within an established employment area surrounded primarily by industrial, commercial, and transportation-related land uses.

The location of the subject site is illustrated in Figure 1.

1.2 Purpose of Report

The purpose of this study is to assess the potential noise and vibration impacts associated with the proposed industrial development and to identify any mitigation measures, where required, in accordance with the Ministry of the Environment, Conservation and Parks (MECP) guidelines and applicable municipal requirements.

This report has been prepared in support of a Zoning By-law Amendment application for the proposed development.

1.3 Proposed Development

The proposed development consists of two single-storey industrial buildings identified as Building A and Building B. The buildings include industrial floor space, accessory office areas, loading docks, truck maneuvering areas, employee parking areas, and rooftop mechanical equipment.

Based on the revised site plan dated June 19, 2026, Building A has a gross floor area of approximately 17,452 m², while Building B has a gross floor area of approximately 21,998 m², for a total gross floor area of approximately 39,451 m². Loading and truck maneuvering activities are generally located within the central truck court between the two buildings.

The proposed site plan is illustrated in Figure 2.

1.4 Study Criteria and Requirements

This study has been prepared in accordance with the applicable requirements of the MECP NPC-300, Environmental Noise Guideline for Stationary and Transportation Sources for Approval and Planning.

The assessment considers both the impact of noise generated by the proposed industrial operations on surrounding points of reception and the potential influence of existing environmental noise sources on the proposed office areas.

1.5 Objective of the Study

The objective of this study is to:

a) Assess stationary noise emissions associated with the proposed industrial development, including truck movements, truck idling activities, rooftop mechanical equipment, and other operational activities associated with the proposed development.
b) Assess the impact of the proposed development on nearby points of reception associated with neighbouring industrial and commercial developments.
c) Review existing environmental noise sources in the surrounding area and evaluate their potential impact on the proposed office areas.
d) Identify any noise mitigation measures required to achieve compliance with applicable MECP guidelines.
e) Review the potential for environmental vibration impacts associated with the proposed development.

2.0 Proposed Facility Description

2.1 General

The proposed development consists of two single-storey industrial buildings intended for employment uses with associated office areas, loading facilities, parking areas, internal roadways, and rooftop mechanical equipment. The revised site layout is illustrated in Figure 2.

2.2 Site Layout and Building Configuration

The proposed development consists of two industrial buildings identified as Building A and Building B.

Based on the revised site plan dated June 19, 2026, Building A has a gross floor area of approximately 17,452 m², while Building B has a gross floor area of approximately 21,998 m², for a total gross floor area of approximately 39,451 m².

The buildings are arranged parallel to one another and are separated by a central truck court. The loading dock areas for both buildings are oriented toward the interior truck court, thereby providing acoustical screening between the loading activities and surrounding properties. Vehicular access to the site is provided from North Service Road.

2.3 Loading and Trucking Operations

Loading and servicing activities are proposed along the interior façades of both buildings. Based on the revised site plan, Building A includes approximately 50 truck level loading

doors and Building B includes approximately 50 truck-level loading doors. The primary noise sources associated with warehouse operations are expected to include:

- Truck arrivals and departures
- Truck maneuvering within the loading court
- Truck idling activities
- Rooftop mechanical equipment

These representative operational activities were incorporated into the CadnaA acoustic model based on a reasonable worst-case operating scenario.

As the loading areas are centrally located between Buildings A and B, the buildings provide substantial acoustical screening between the truck court and the surrounding properties.

2.4 Office Areas

Office areas are proposed within both Building A and Building B to accommodate administrative and operational functions associated with the proposed industrial development.

The office areas represent the primary occupied spaces within the proposed development and have therefore been considered in the assessment of environmental noise sources affecting the site. Based on the conceptual design, the office areas are expected to utilize sealed, fixed, non-operable windows and mechanical ventilation systems, which is consistent with typical industrial developments within the surrounding employment area.

2.5 Surrounding land Uses and Points of Reception

The subject site is located within a predominantly industrial and employment area of the City of Burlington. Surrounding land uses consist primarily of industrial buildings, warehouses, commercial establishments, parking areas, and associated office spaces.

A review of the surrounding properties indicates that there are no nearby residential dwellings or other residential noise-sensitive land uses adjacent to the proposed development. Accordingly, the assessment focuses on the nearest office areas associated with neighbouring industrial developments, which represent the closest occupied points of reception in the vicinity of the site.

Based on a desktop review of available aerial imagery and building information, the neighbouring office areas appear to utilize sealed, fixed, non-operable windows and mechanical ventilation systems, which are typical of industrial and employment buildings. These office areas have been selected as the representative points of reception for the stationary noise assessment presented in this report.

The locations of the selected points of reception relative to the proposed development are illustrated in Figure 3.

3.0 Sound Level Criteria

3.1 Environmental Noise Classification

The assessment of environmental noise impacts has been completed in accordance with the applicable MECP guidelines, including Publication NPC-300. Based on a review of the surrounding land uses, the subject site is located within a developed employment area characterized by industrial, commercial, and transportation-related activities. Accordingly, the area is considered a Class 1 Acoustic Environment as defined by NPC-300.

3.2 Stationary Noise Criteria

3.2.1 General

The proposed industrial development is considered a stationary source of sound under NPC-300. Stationary sources include all sound generated within the property boundary, including truck movements, truck idling activities, rooftop mechanical equipment, and other operational activities associated with the proposed development.

The stationary noise assessment has been completed in accordance with the requirements of NPC-300 to evaluate the potential impact of the proposed development on neighbouring points of reception.

3.2.2 Exclusion Limits for Class 1 Area

For a Class 1 Acoustic Environment, the applicable exclusion limits for stationary noise sources are summarized below:

Time Period	Sound Level Limit (dBA)
07:00 - 19:00	50
19:00 - 23:00	50
23:00 - 07:00	45

In accordance with NPC-300, the applicable sound level limit at a point of reception is the greater of the exclusion limit or the existing background sound level.

4.0 Transportation Noise Assessment

4.1 Appleby Line

Appleby Line is located approximately 120 m east of the nearest proposed office area. A review of the revised site plan indicates that the proposed office areas are separated from Appleby Line by parking areas, internal roadways, landscaped areas, and portions of the proposed buildings.

The proposed office areas are expected to utilize sealed, fixed, non-operable windows and mechanical ventilation systems, which are typical of industrial developments. Given the separation distance and intervening site features, transportation noise from Appleby Line is not expected to adversely affect indoor acoustic conditions within the proposed office areas.

4.2 QEW/Highway 403 Corridor

The QEW/Highway 403 corridor is located more than 350 m south of the proposed development. Existing industrial buildings and associated employment land uses are situated between the highway corridor and the subject site. Due to the substantial setback distance and shielding provided by the intervening development, transportation noise from the QEW/Highway 403 corridor is not expected to be a significant contributor to the sound environment at the proposed office areas.

4.3 Conclusions

Based on the separation distances, intervening development, and the proposed use of sealed, fixed, non-operable windows within the office areas, transportation noise from Appleby Line and the QEW/Highway 403 corridor is not expected to adversely affect indoor acoustic conditions within the proposed development.

The proposed office areas are expected to be mechanically ventilated and equipped with air-conditioning systems. Given the setback distances from the surrounding transportation corridors and the shielding provided by intervening development, standard commercial building construction, including conventional glazing systems, is expected to provide suitable indoor acoustic conditions for the proposed office areas. Accordingly, no specialized acoustical façade treatments are anticipated to be required for transportation noise.

Transportation noise is therefore not considered a governing design consideration for the proposed industrial development.

5.0 On-Site Stationary Noise Assessment

The proposed industrial development includes rooftop mechanical equipment and operational activities associated with truck movements, truck maneuvering, truck idling, and loading dock operations. These representative noise sources were incorporated into a three-dimensional acoustic model developed using CadnaA software to assess the potential impact of the proposed development on nearby points of reception.

5.1 Rooftop Mechanical Equipment

The proposed industrial buildings are expected to be serviced by rooftop heating, ventilation, and air conditioning (HVAC) equipment. For the purposes of this assessment, representative make-up air units (MAUs) serving the industrial floor areas and packaged rooftop air-conditioning units serving the office areas were incorporated into the acoustic model.

The quantity, sound power levels, operating schedules, and source heights adopted in the assessment are summarized in Table 1.

Table 1: Rooftop Mechanical Equipment Assumptions

Source Type	Quantity	Sound Power Level (dBA)	Operating Schedule
Make-Up Air Units (MAUs)	24	84	60 min/hr (Day, Evening, Night)
Office Packaged AC Units	8	87	60 min/hr Day, 45 min/hr Evening, 30 min/hr Night

5.2 Truck Movements and Loading Activities

Truck traffic associated with the proposed industrial development was incorporated into the acoustic model to represent vehicle movements within the site, truck maneuvering activities, and truck idling operations at the loading docks.

Inbound and outbound truck movements were modeled as moving line sources along the designated truck circulation routes. Truck maneuvering activities within the loading court were represented using moving point sources, while truck idling activities were represented as stationary point sources located adjacent to the loading dock areas.

The loading and servicing areas are centrally located between Buildings A and B. As a result, the proposed buildings provide substantial acoustical screening between the loading dock operations and the surrounding properties. The source sound levels and operating assumptions adopted in the assessment are summarized in Tables 2 and 3.

Table 2: Truck Idling Source Assumptions

Source Type	Quantity	Sound Power Level (dBA)	Operating Duration
Truck Idling	16	98	5 min/hr

Table 3: Truck Movement Source Assumptions

Source Type	Sound Power Level (dBA)	Operating Assumptions
Trucks Moving In/Out	104 (Day/Evening), 101 (Night)	16 truck movements during the daytime and evening periods; 8 truck movements during the nighttime period
Truck Maneuvering	76 dBA	Representative maneuvering activities within the loading court at a travel speed of 10 km/h

5.3 Points of Reception

In accordance with NPC-300, a point of reception is defined as a location where sound originating from a stationary source is received. Based on a review of the surrounding land uses, there are no nearby residential dwellings adjacent to the subject site. Accordingly, the assessment focuses on the nearest office areas associated with neighbouring industrial developments.

A desktop review of the surrounding properties indicates that the neighbouring office areas are generally located within industrial buildings and are expected to utilize sealed, fixed, non-operable windows and mechanical ventilation systems. These office areas represent the closest occupied areas to the proposed industrial development and were therefore selected as the representative points of reception for the stationary noise assessment.

The locations of the assessed points of reception are illustrated in Figure 3. Two representative office receptors were selected at the nearest neighbouring industrial buildings located south and southwest of the subject site.

As the identified office areas are not typically occupied during the evening and nighttime periods, the daytime assessment period was considered to be the governing scenario for the stationary noise assessment.

5.4 Acoustic Model Methodology

A three-dimensional acoustic model of the proposed development was developed using CadnaA software. Sound propagation was calculated in accordance with the ISO 9613-2 prediction methodology, which accounts for the effects of geometric spreading, atmospheric absorption, ground attenuation, barrier attenuation, and building reflections.

The acoustic model incorporates the proposed site layout, building geometry, loading dock locations, truck circulation routes, rooftop mechanical equipment, and surrounding developments. Representative industrial operations including truck movements, truck maneuvering activities, truck idling activities, and rooftop HVAC equipment were incorporated into the model based on a reasonable worst-case operating scenario.

The loading and servicing areas were modeled in accordance with the proposed site plan. Truck movements entering and exiting the site were represented as moving line sources, while truck maneuvering activities and truck idling operations were represented using point sources. Rooftop mechanical equipment was modeled as elevated point sources located at their respective rooftop locations.
The assessment was completed for the daytime period, which represents the governing assessment period for the identified office receptors. The resulting sound levels were evaluated at the representative points of reception described in Section 5.3 and compared with the applicable NPC-300 sound level criteria.

5.5 Assessment Results

The predicted daytime sound levels generated by the proposed industrial development at the surrounding points of reception are illustrated in Figure 4. The results represent the cumulative contribution from rooftop mechanical equipment, truck movements, truck maneuvering activities, and truck idling operations associated with the proposed development. The predicted daytime sound levels at the assessed points of reception are summarized in Table 4.

Point of Reception	Predicted Sound Level (dBA)	NPC-300 Limit (dBA)
POR-1	40	50
POR-2	46	50

As shown in Table 4, the predicted daytime sound levels comply with the applicable NPC-300 daytime exclusion limit of 50 dBA at all assessed points of reception. Appendix A contains sample sound level calculations for POR-1.

5.6 Discussion

The results demonstrate that the proposed industrial development is capable of satisfying the applicable NPC-300 stationary noise criteria at the surrounding points of reception.

A significant factor contributing to the favourable acoustic performance of the development is the site layout. The loading and servicing areas are located within the central truck court between Buildings A and B, resulting in substantial acoustical screening provided by the proposed buildings. Consequently, the majority of truck-related activities are shielded from the surrounding properties.

The rooftop mechanical equipment incorporated into the assessment consists of representative make-up air units serving the industrial floor areas and packaged rooftop air-conditioning units serving the office areas. Truck-related activities, including vehicle movements, maneuvering operations, and truck idling, represent the dominant noise sources associated with the proposed development.

The highest predicted daytime sound level was 46 dBA at POR-2, which is 4 dB below the applicable NPC-300 daytime exclusion limit of 50 dBA. Based on the assessment results, the proposed industrial development is not expected to result in adverse stationary noise impacts at the neighbouring industrial office receptors.

Accordingly, no additional stationary noise mitigation measures are anticipated to be required, provided that future equipment selections and operational characteristics remain generally consistent with the assumptions adopted in this assessment.

6.0 Off-Site Stationary Noise Impact on Proposed Office Areas

6.1 Existing Off-Site Stationary Noise Sources

The lands surrounding the subject site consist primarily of industrial and commercial developments that include a variety of stationary noise sources associated with material handling, storage, processing, and transportation activities.

A review of the adjacent industrial operations identified several representative stationary noise sources associated with a neighbouring industrial facility (Voortman Bakery) located south of the subject site. These sources include bulk material unloading equipment, pneumatic conveying systems, silo venting equipment, dust collection systems, waste handling equipment, and truck-related activities.

As detailed equipment specifications and acoustical data were not available, representative sound power levels and operating schedules were adopted based on proxy data from the SSWA's acoustical database developed from previous noise studies involving similar industrial operations and equipment. The adopted source inventory was selected to represent a conservative worst-case operating scenario for the purposes of assessing potential impacts on the proposed office areas.

The source sound power levels, operating schedules, and source characteristics incorporated into the acoustic model are summarized in Table 5. The locations of the assessed off-site stationary noise sources are illustrated in Figure 5.

Table 5: Representative Off-Site Stationary Noise Source Assumptions

Source ID	Description	Source Type	Height (m)	Oper. Time (min/hr)	LwA (dBA)
Bulk_Truck_Unload	Bulk ingredient tanker unloading blower	Point	2	60	110
Pneumatic_Convey	Pneumatic conveying/transfer blower	Point	8	60	108
Silo_venting	Silo vent filters/silo venting system	Point	8	60	98
Dust_Collector	Dust collector	Point	4	45	100
Waste_Compactor	Waste compactor/hydraulic ram	Point	2.5	15	102
Truck_Eng_Idle	Truck engine idling during unloading	Point	1.5	10	95
Truck_refer	Trailer refrigeration unit	Point	2.5	20	96

6.2 Proposed Office Receptors

The proposed development includes office areas within Buildings A and B. These office areas represent the primary occupied spaces within the proposed development.

A review of the surrounding industrial operations identified the office areas located along the south façade of Building B as the most exposed locations relative to the identified off-site stationary noise sources. Accordingly, a representative point of reception (POR-A) was established at the south façade of Building B to assess the potential impact of the neighbouring industrial operations. The location of the assessed office receptor is illustrated in Figure 5.

As the proposed office areas are intended for daytime occupancy only, the daytime assessment period was considered to be the governing scenario for the assessment of off-site stationary noise impacts.

6.3 Acoustic Model Methodology

The off-site stationary noise assessment was completed using the same three-dimensional CadnaA acoustic model described in Section 5.3.

The model incorporates the identified off-site stationary noise sources, the proposed industrial buildings, the proposed office areas, and surrounding site features. Sound propagation was calculated using the ISO 9613-2 methodology, which accounts for geometric spreading, atmospheric absorption, ground attenuation, barrier attenuation, and building reflections.

Predicted sound levels were evaluated at the representative office receptor and compared with generally accepted best management practices for office environments.

6.4 Assessment Results

Predicted daytime sound levels generated by the identified off-site stationary noise sources at the proposed office receptor are illustrated in Figure 6. The predicted daytime sound level at the most exposed office receptor is summarized in Table 6.

Table 6: Predicted Daytime Sound Levels at Proposed Office Receptor

Point of Reception	Predicted Daytime Sound Level (dBA)
POR-A (South Façade of Building B)	74

The assessment indicates that the office areas located along the south façade of Building B are exposed to elevated sound levels generated by the neighbouring industrial operations.

6.5 Discussion and Recommendations

The assessment indicates that the office areas located along the south façade of Building B are exposed to a predicted daytime sound level of 74 dBA resulting from neighbouring industrial operations. The dominant sources contributing to the sound environment include bulk unloading equipment, pneumatic conveying equipment, silo venting systems,

dust collection equipment, waste handling equipment, and truck-related activities associated with the adjacent industrial facility.

Although NPC-300 does not prescribe specific indoor sound level criteria for office spaces, it is generally accepted that office environments should be designed to provide suitable indoor acoustic conditions that support normal speech communication and occupant comfort. As a best management practice, the proposed office areas are expected to be mechanically ventilated and equipped with air-conditioning systems, allowing the use of sealed, fixed, non-operable windows.

Based on the predicted exterior sound levels and the anticipated office use, a minimum laboratory-tested Sound Transmission Class (STC) rating of 35 is recommended for the office areas located along the south façade of Building B. Standard commercial wall constructions are expected to provide adequate sound insulation and no additional wall treatments are anticipated to be required.

As the assessment has been completed using representative sound power levels based on comparable industrial operations, it is recommended that the off-site stationary noise environment affecting Building B be confirmed during the detailed design stage. In addition, the final glazing specifications and shop drawings for the office areas within Building B should be reviewed by a qualified acoustical consultant to verify that the recommended acoustical performance is achieved and that suitable indoor acoustic conditions will be provided.

Provided that the recommended glazing is incorporated into the final building design and verified during the detailed design stage, suitable indoor acoustic conditions are expected to be achieved within the proposed office areas.

7.0 Vibration Review

A review of the surrounding area was completed to identify potential sources of environmental vibration that could affect the proposed development.

The subject site is located within an established employment area surrounded primarily by industrial, commercial, and transportation-related land uses. Appleby Line is located approximately 120 m east of the nearest proposed office area, while the QEW/Highway 403 corridor is located more than 350 m south of the proposed development. No railway corridors or other significant vibration sources were identified in close proximity to the site.

The proposed development consists of two industrial buildings with office areas, loading facilities, and rooftop mechanical equipment. Typical industrial activities, including truck movements, loading dock operations, and HVAC equipment, are not expected to generate vibration levels that would adversely affect the proposed office areas or surrounding developments.

Based on the nature of the proposed development, surrounding land uses, and separation distances to nearby transportation corridors, adverse vibration impacts are not

anticipated. Accordingly, no vibration mitigation measures are considered necessary for the proposed development.

8.0 Conclusions and Recommendations

Based on the assessment completed herein, the following conclusions have been reached:

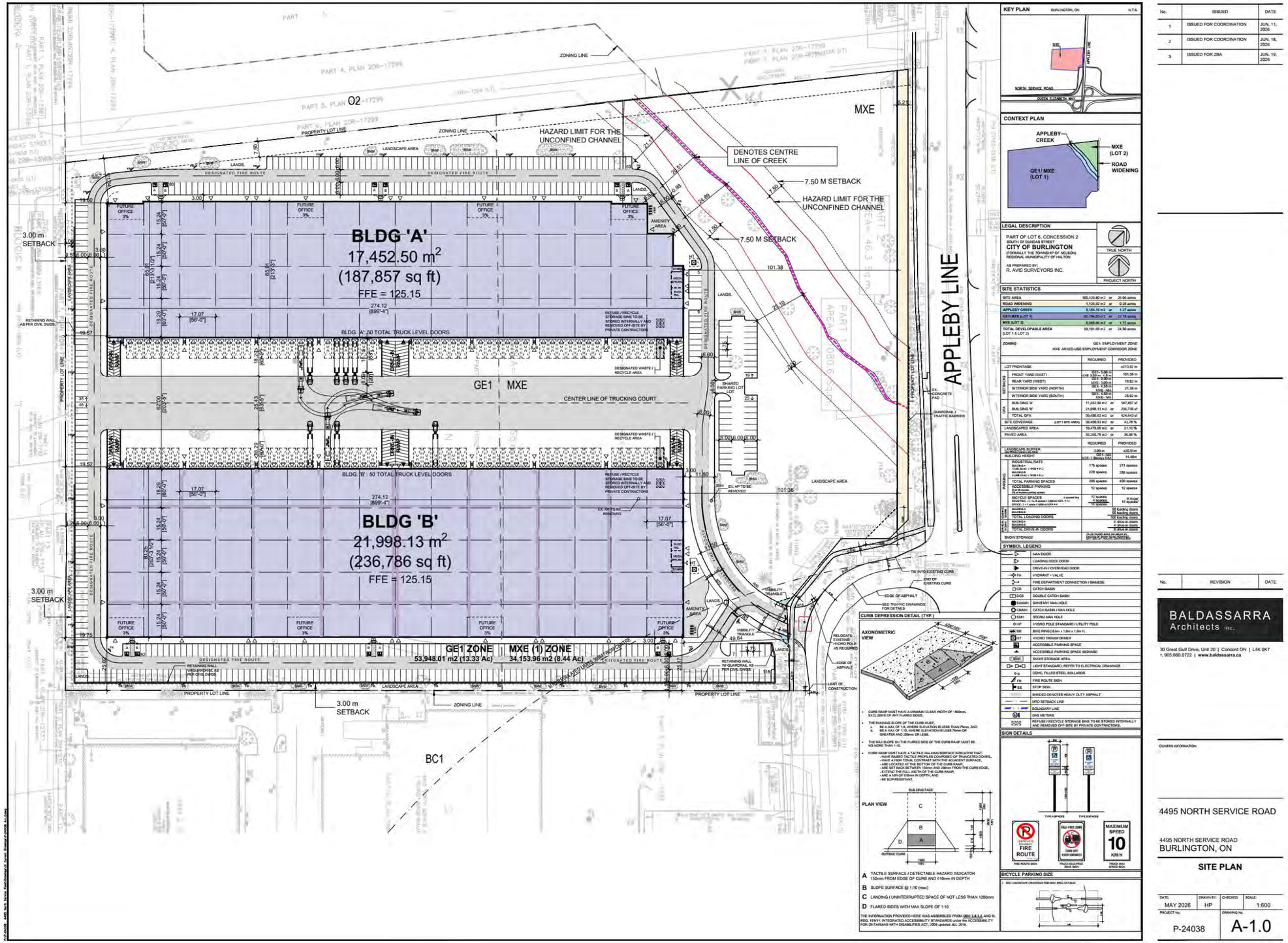
1. The subject site is located within a Class 1 Acoustic Environment in accordance with MECP Publication NPC-300.
2. Transportation noise from Appleby Line and the QEW/Highway 403 corridor is not expected to adversely affect the proposed office areas due to the separation distances, intervening development, and the use of sealed, fixed, non-operable windows.
3. The proposed industrial operations, including rooftop mechanical equipment, truck movements, truck maneuvering activities, and truck idling operations, are predicted to satisfy the applicable NPC-300 stationary noise criteria at the neighbouring industrial office receptors.
4. The highest predicted daytime sound level at the neighbouring points of reception was 46 dBA, which complies with the applicable NPC-300 daytime exclusion limit of 50 dBA.
5. A review of off-site stationary noise sources associated with neighbouring industrial operations identified a predicted daytime sound level of 74 dBA at the office areas located along the south façade of Building B.
6. To provide suitable indoor acoustic conditions within the proposed office areas located along the south façade of Building B should be equipped with sealed, fixed, non-operable windows having a minimum laboratory-tested Sound Transmission Class (STC) rating of 35.
7. During the detailed design stage, the stationary noise environment affecting the proposed office areas within Building B affected by the neighbouring industrial operations should be confirmed and the final glazing specifications and shop drawings should be reviewed by a qualified acoustical consultant to verify that the recommended acoustical performance is achieved.
8. Based on the nature of the proposed development and surrounding land uses, adverse vibration impacts are not anticipated and no vibration mitigation measures are considered necessary.

Based on the findings of this study and subject to the recommendations provided herein, the proposed industrial development is considered feasible from a noise and vibration perspective.

FIGURES



Figure 1: Key Plan Showing Location of Subject Site



KEY PLAN BURLINGTON, ON N.T.S.

CONTEXT PLAN

LEGAL DESCRIPTION

PART OF LOT 6, CONCESSION 2 SOUTH OF DUNDAS STREET
CITY OF BURLINGTON
(FORMALLY THE TOWNSHIP OF NELSON)
REGIONAL MUNICIPALITY OF HALTON

AS PREPARED BY:
R. AVIS SURVEYORS INC.

TRUE NORTH
PROJECT NORTH

SITE STATISTICS

SITE AREA	105,429.80 m2	or	26.06 acres
ROAD WIDENING	1,126.92 m2	or	0.28 acres
APPLEBY CREEK	5,154.19 m2	or	1.27 acres
GE1/ MXE (LOT 1)	90,159.83 m2	or	22.28 acres
MXE (LOT 2)	6,988.96 m2	or	1.72 acres
TOTAL DEVELOPABLE AREA (LOT 1 & LOT 2)	99,181.69 m2	or	24.50 acres

ZONING: GE1= EMPLOYMENT ZONE; MXE -MIXED-USE EMPLOYMENT CORRIDOR ZONE

		REQUIRED	PROVIDED
LOT FRONTAGE			±213.52 m
SETBACK	FRONT YARD (EAST)	GE1= 3.00 m; MXE= 3.00 m	101.38 m
	REAR YARD (WEST)	GE1= 3.00 m; MXE= 3.00 m	19.82 m
	INTERIOR SIDE YARD (NORTH)	GE1= 4.50 m; MXE= NIL	21.38 m
	INTERIOR SIDE YARD (SOUTH)	GE1= 4.50 m; MXE= NIL	25.82 m
GFA	BUILDING 'A'	17,452.50 m2	or 187,857 sf
	BUILDING 'B'	21,998.13 m2	or 236,786 sf
	TOTAL GFA	39,450.63 m2	or 424,643 sf
SITE COVERAGE	±37.1 SITE AREA	39,450.63 m2	or 42.79 %
LANDSCAPED AREA		19,479.55 m2	or 21.13 %
PAVED AREA		33,265.75 m2	or 36.08 %

		REQUIRED	PROVIDED
LANDSCAPE BUFFER		3.00 m	±25.55m
BUILDING HEIGHT		GE1= 20m; MXE= 2.5Storeys MAX	14.48m
PARKING	INDUSTRIAL RATE: BUILDING A (1,452.50 m2 x 1/100 m2 = 14.5 + 1/100 m2 = 220 spaces) BUILDING B (21,998.13m2 x 1/100 m2 = 219.9 + 1/100 m2 = 220 spaces)	175 spaces	211 spaces
		220 spaces	288 spaces
	TOTAL PARKING SPACES	395 spaces	499 spaces
	ACCESSIBLE PARKING (As per Applicable zoning spaces)	12 spaces	12 spaces
	BICYCLE SPACES (1 space/ day RESIDENTIAL= (1 x 0.3) spaces = 1 (200 m2 GFA = 1 space = 1,000 m2 GFA = 4 spaces) OFFICE (2 = 1 space = 1,000 m2 GFA = 4 spaces)	12 spaces + 16 spaces = 28 spaces	8 (long) + 16 (spaces)
LOADING DOORS	BUILDING A (1,452.50 m2 x 1/1,850 m2 = 0.78 = 1 loading door) BUILDING B (21,998.13 m2 x 1/1,850 m2 = 11.89 = 12 loading doors)	13 loading doors	50 loading doors 90 loading doors
	TOTAL LOADING DOORS		140 loading doors
DRIVE-IN DOORS	BUILDING A (1,452.50 m2 x 1/1,850 m2 = 0.78 = 1 drive-in door) BUILDING B (21,998.13 m2 x 1/1,850 m2 = 11.89 = 12 drive-in doors)		4 (Drive-in doors) 4 (Drive-in doors) 8 (Drive-in doors)
	TOTAL DRIVE-IN DOORS		8 (Drive-in doors)
SNOW STORAGE		5% OF PAVED AREA (33,265.75 m2 x 5% = 1,663.29 m2)	1,663.29 m2

No.	ISSUED	DATE
1	ISSUED FOR COORDINATION	JUN. 11, 2026
2	ISSUED FOR COORDINATION	JUN. 18, 2026
3	ISSUED FOR ZBA	JUN. 19, 2026

No.	REVISION	DATE

BALDASSARRA Architects Inc.
30 Great Gulf Drive, Unit 20 | Concord ON | L4K 0K7
t. 905.660.0722 | www.baldassarra.ca

OWNERS INFORMATION:

4495 NORTH SERVICE ROAD

4495 NORTH SERVICE ROAD
BURLINGTON, ON

SITE PLAN

DATE:	DRAWN BY:	CHECKED:	SCALE:
MAY 2026	HP		1:600

PROJECT No.: P-24038
DRAWING No.: A-1.0

Figure 2: Site Plan



Figure 3: Proposed Industrial Stationary Noise Sources Relative to the Selected Office Receptors



Figure 4: Predicted Daytime Sound Levels at Plane of Window Due to On-Site Stationary Noise Sources

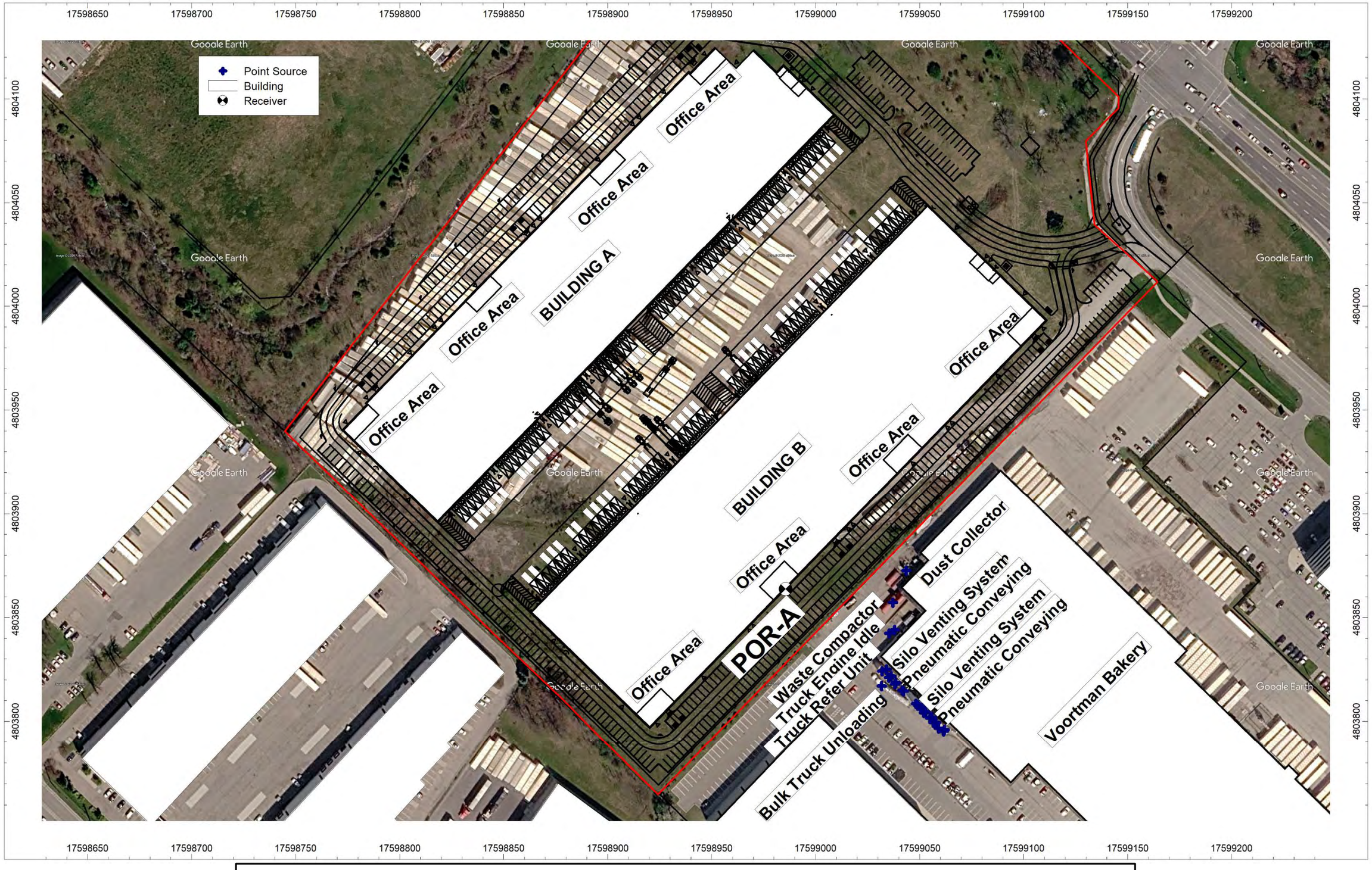


Figure 5: Locations of the Worst-Case Off-Site Stationary Sources Relative to the Selected Receptor (Office Area)

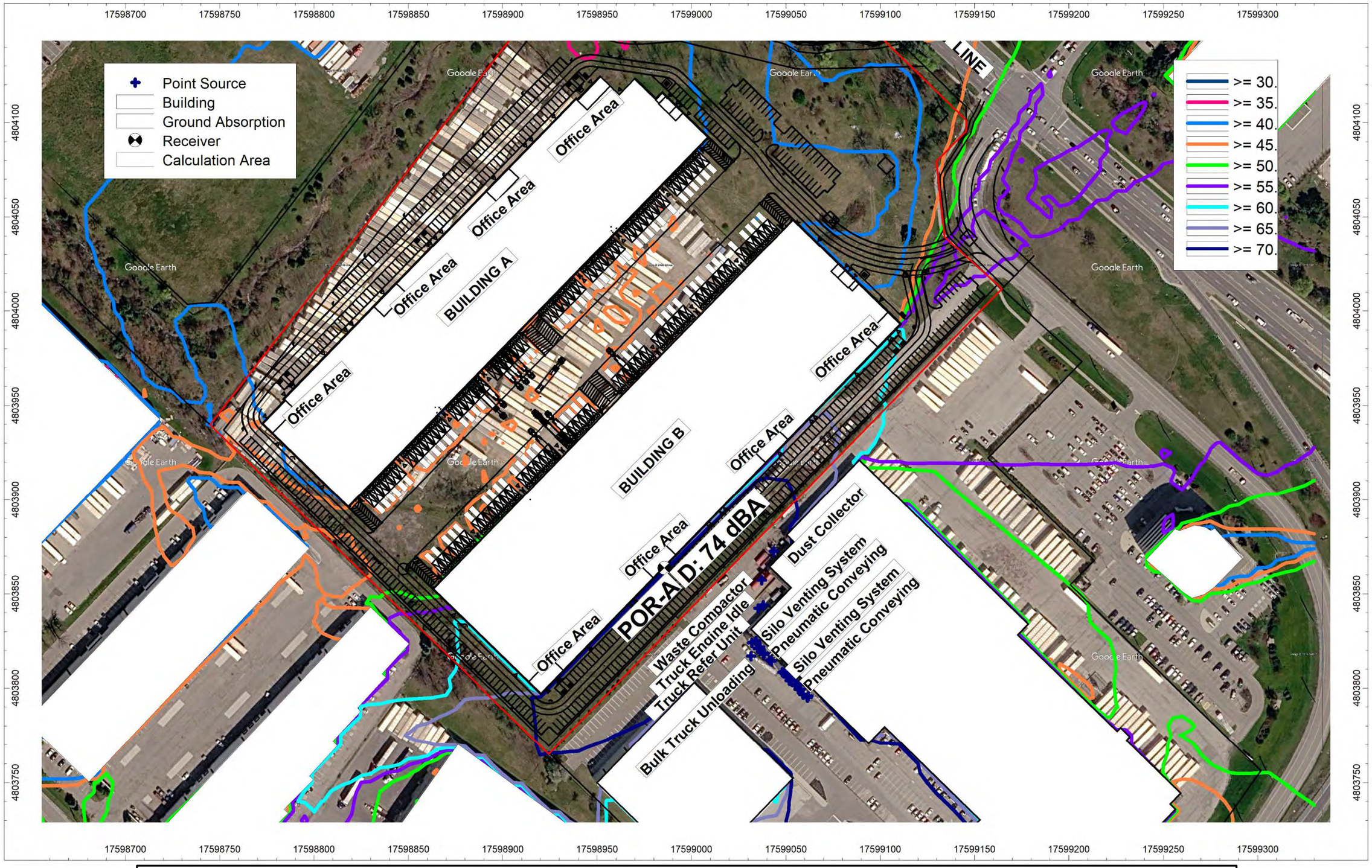


Figure 6: Predicted Daytime Sound Levels at the Proposed Office Receptor Due to Off-Site Stationary Noise Sources

APPENDIX A

CadnaA Stationary Noise Model Outputs

Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius (m)	2000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (m)	1000.00
Min. Length of Section (m)	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	6.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (°C)	10
rel. Humidity (%)	70
Ground Absorption G	0.00
Wind Speed for Dir. (m/s)	3.0
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver
Name: POR-1
ID: POR_1
X: 17598844.60
Y: 4803817.06
Z: 2.50

Point Source, ISO 9613, Name: "Truck-Idling-01", ID: "Trk_idle_01"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
268	17598858.28	4803873.83	2.00	0	DEN	A	86.7	0.0	0.0	0.0	46.3	0.2	-3.0	0.0	0.0	17.7	0.0	0.0	25.5
269	17598858.28	4803873.83	2.00	2	DEN	A	86.7	0.0	0.0	0.0	52.1	0.4	-3.0	0.0	0.0	25.0	0.0	4.0	8.2
270	17598858.28	4803873.83	2.00	1	DEN	A	86.7	0.0	0.0	0.0	48.7	0.3	-3.0	0.0	0.0	25.0	0.0	1.0	14.7

Point Source, ISO 9613, Name: "Truck-Idling-16", ID: "Trk_idle_16"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
804	17598849.74	4803897.05	2.00	0	DEN	A	86.7	0.0	0.0	0.0	49.1	0.3	-3.0	0.0	0.0	19.4	0.0	0.0	20.9
806	17598849.74	4803897.05	2.00	1	DEN	A	86.7	0.0	0.0	0.0	52.1	0.4	-3.0	0.0	0.0	25.0	0.0	2.0	10.1

Point Source, ISO 9613, Name: "MAU-13", ID: "MAU_13"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
813	17598909.84	4803822.78	16.00	0	DEN	A	84.3	0.0	0.0	0.0	47.5	0.3	-3.0	0.0	0.0	6.4	0.0	0.0	33.2

Point Source, ISO 9613, Name: "AC_05", ID: "AC_05"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
814	17598923.77	4803804.40	16.00	0	D	A	86.7	0.0	0.0	0.0	49.2	0.5	-3.0	0.0	0.0	3.6	0.0	0.0	36.3

Point Source, ISO 9613, Name: "Truck-Idling-02", ID: "Trk_idle_02"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
815	17598887.45	4803904.99	2.00	0	DEN	A	86.7	0.0	0.0	0.0	50.8	0.4	-3.0	0.0	0.0	25.0	0.0	0.0	13.5
816	17598887.45	4803904.99	2.00	2	DEN	A	86.7	0.0	0.0	0.0	54.8	0.6	-3.4	0.0	0.0	25.0	0.0	4.0	5.7
817	17598887.45	4803904.99	2.00	1	DEN	A	86.7	0.0	0.0	0.0	54.5	0.5	-3.3	0.0	0.0	25.0	0.0	2.0	7.9
818	17598887.45	4803904.99	2.00	2	DEN	A	86.7	0.0	0.0	0.0	56.1	0.7	-3.8	0.0	0.0	25.0	0.0	4.0	4.6
819	17598887.45	4803904.99	2.00	2	DEN	A	86.7	0.0	0.0	0.0	54.8	0.6	-3.4	0.0	0.0	25.0	0.0	3.0	6.7
820	17598887.45	4803904.99	2.00	2	DEN	A	86.7	0.0	0.0	0.0	57.1	0.7	-4.0	0.0	0.0	25.0	0.0	79.8	-72.0
821	17598887.45	4803904.99	2.00	2	DEN	A	86.7	0.0	0.0	0.0	58.3	0.8	-4.2	0.0	0.0	25.0	0.0	02.3	-95.5

Point Source, ISO 9613, Name: "Truck-Idling-15", ID: "Trk_idle_15"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
828	17598876.47	4803924.70	2.00	0	DEN	A	86.7	0.0	0.0	0.0	52.0	0.4	-3.0	0.0	0.0	25.0	0.0	0.0	12.3
830	17598876.47	4803924.70	2.00	1	DEN	A	86.7	0.0	0.0	0.0	53.8	0.5	-3.1	0.0	0.0	25.0	0.0	2.0	8.4
831	17598876.47	4803924.70	2.00	2	DEN	A	86.7	0.0	0.0	0.0	57.1	0.7	-4.0	0.0	0.0	25.0	0.0	4.0	3.8
832	17598876.47	4803924.70	2.00	2	DEN	A	86.7	0.0	0.0	0.0	55.9	0.6	-3.7	0.0	0.0	25.0	0.0	79.0	-70.2
833	17598876.47	4803924.70	2.00	2	DEN	A	86.7	0.0	0.0	0.0	54.9	0.6	-3.4	0.0	0.0	25.0	0.0	73.2	-63.6

Point Source, ISO 9613, Name: "MAU-14", ID: "MAU_14"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
836	17598926.78	4803839.18	16.00	0	DEN	A	84.3	0.0	0.0	0.0	49.7	0.4	-3.0	0.0	0.0	11.8	0.0	0.0	25.5

Point Source, ISO 9613, Name: "Truck-Idling-03", ID: "Trk_idle_03"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
838	17598911.87	4803929.27	2.00	0	DEN	A	86.7	0.0	0.0	0.0	53.3	0.5	-3.0	0.0	0.0	25.0	0.0	0.0	10.9
840	17598911.87	4803929.27	2.00	2	DEN	A	86.7	0.0	0.0	0.0	56.5	0.7	-3.9	0.0	0.0	25.0	0.0	4.0	4.3
841	17598911.87	4803929.27	2.00	1	DEN	A	86.7	0.0	0.0	0.0	55.8	0.6	-3.7	0.0	0.0	25.0	0.0	2.0	6.9
842	17598911.87	4803929.27	2.00	2	DEN	A	86.7	0.0	0.0	0.0	57.0	0.7	-4.0	0.0	0.0	25.0	0.0	4.0	3.9
843	17598911.87	4803929.27	2.00	2	DEN	A	86.7	0.0	0.0	0.0	56.0	0.6	-3.7	0.0	0.0	25.0	0.0	3.0	5.8

Point Source, ISO 9613, Name: "Truck-Idling-03", ID: "Trk_idle_03"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
845	17598911.87	4803929.27	2.00	2	DEN	A	86.7	0.0	0.0	0.0	59.8	1.0	-4.5	0.0	0.0	25.0	0.0	07.4	-102.0
846	17598911.87	4803929.27	2.00	2	DEN	A	86.7	0.0	0.0	0.0	60.3	1.1	-4.6	0.0	0.0	25.0	0.0	09.1	-104.2

Point Source, ISO 9613, Name: "MAU-15", ID: "MAU_15"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
854	17598941.07	4803854.53	16.00	0	DEN	A	84.3	0.0	0.0	0.0	51.4	0.4	-3.0	0.0	0.0	13.2	0.0	0.0	22.4

Point Source, ISO 9613, Name: "Truck-Idling-14", ID: "Trk_idle_14"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
856	17598898.77	4803942.77	2.00	0	DEN	A	86.7	0.0	0.0	0.0	53.7	0.5	-3.0	0.0	0.0	25.0	0.0	0.0	10.5
857	17598898.77	4803942.77	2.00	2	DEN	A	86.7	0.0	0.0	0.0	56.7	0.7	-3.9	0.0	0.0	25.0	0.0	4.0	4.2
858	17598898.77	4803942.77	2.00	1	DEN	A	86.7	0.0	0.0	0.0	55.2	0.6	-3.5	0.0	0.0	25.0	0.0	2.0	7.4
860	17598898.77	4803942.77	2.00	2	DEN	A	86.7	0.0	0.0	0.0	57.7	0.8	-4.1	0.0	0.0	25.0	0.0	4.0	3.4
861	17598898.77	4803942.77	2.00	2	DEN	A	86.7	0.0	0.0	0.0	56.7	0.7	-3.9	0.0	0.0	25.0	0.0	73.7	-65.4

Point Source, ISO 9613, Name: "MAU-01", ID: "MAU_01"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
865	17598809.22	4803919.40	16.00	0	DEN	A	84.3	0.0	0.0	0.0	51.8	0.4	-3.0	0.0	0.0	19.3	0.0	0.0	15.8

Point Source, ISO 9613, Name: "Truck-Idling-04", ID: "Trk_idle_04"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
866	17598925.56	4803945.41	2.00	0	DEN	A	86.7	0.0	0.0	0.0	54.6	0.6	-3.3	0.0	0.0	25.0	0.0	0.0	9.9
868	17598925.56	4803945.41	2.00	2	DEN	A	86.7	0.0	0.0	0.0	57.4	0.8	-4.1	0.0	0.0	25.0	0.0	4.0	3.6
870	17598925.56	4803945.41	2.00	1	DEN	A	86.7	0.0	0.0	0.0	56.5	0.7	-3.9	0.0	0.0	25.0	0.0	2.0	6.3
871	17598925.56	4803945.41	2.00	2	DEN	A	86.7	0.0	0.0	0.0	57.7	0.8	-4.1	0.0	0.0	25.0	0.0	4.0	3.4
873	17598925.56	4803945.41	2.00	2	DEN	A	86.7	0.0	0.0	0.0	60.6	1.1	-4.7	0.0	0.0	25.0	0.0	10.4	-105.8

Point Source, ISO 9613, Name: "Truck-Idling-13", ID: "Trk_idle_13"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
888	17598908.69	4803957.32	2.00	0	DEN	A	86.7	0.0	0.0	0.0	54.8	0.6	-3.4	0.0	0.0	25.0	0.0	0.0	9.7
889	17598908.69	4803957.32	2.00	2	DEN	A	86.7	0.0	0.0	0.0	57.5	0.8	-4.1	0.0	0.0	25.0	0.0	4.0	3.5
890	17598908.69	4803957.32	2.00	1	DEN	A	86.7	0.0	0.0	0.0	55.8	0.6	-3.7	0.0	0.0	25.0	0.0	2.0	6.9
891	17598908.69	4803957.32	2.00	2	DEN	A	86.7	0.0	0.0	0.0	58.2	0.8	-4.2	0.0	0.0	25.0	0.0	4.0	2.9
893	17598908.69	4803957.32	2.00	2	DEN	A	86.7	0.0	0.0	0.0	57.3	0.8	-4.0	0.0	0.0	25.0	0.0	99.4	-91.7
894	17598908.69	4803957.32	2.00	2	DEN	A	86.7	0.0	0.0	0.0	56.9	0.7	-3.9	0.0	0.0	25.0	0.0	73.7	-65.7

Point Source, ISO 9613, Name: "MAU-02", ID: "MAU_02"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
900	17598825.58	4803936.03	16.00	0	DEN	A	84.3	0.0	0.0	0.0	52.7	0.5	-3.0	0.0	0.0	19.1	0.0	0.0	15.1

Point Source, ISO 9613, Name: "AC_01", ID: "AC_01"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
901	17598781.68	4803944.06	16.00	0	D	A	86.7	0.0	0.0	0.0	54.1	0.8	-3.0	0.0	0.0	20.0	0.0	0.0	14.8

Point Source, ISO 9613, Name: "MAU-16", ID: "MAU_16"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
905	17598960.65	4803873.06	16.00	0	DEN	A	84.3	0.0	0.0	0.0	53.2	0.5	-3.0	0.0	0.0	13.9	0.0	0.0	19.7
907	17598960.65	4803873.06	16.00	1	DEN	A	84.3	0.0	0.0	0.0	58.1	0.9	-3.0	0.0	0.0	24.6	0.0	2.4	1.4

Point Source, ISO 9613, Name: "AC_06", ID: "AC_06"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
912	17598982.37	4803867.83	16.00	0	D	A	86.7	0.0	0.0	0.0	54.4	0.8	-3.0	0.0	0.0	15.5	0.0	0.0	19.0
913	17598982.37	4803867.83	16.00	1	D	A	86.7	0.0	0.0	0.0	59.0	1.3	-3.0	0.0	0.0	25.0	0.0	2.0	2.4