REPORT

525-565 CONESTOGO ROAD

WATERLOO, ONTARIO

NOISE AND VIBRATION IMPACT STUDY

RWDI #2002470

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SUBMITTED TO

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EXECUTIVE SUMMARY

RWDI was retained to prepare a Noise and Vibration Impact Study (NVIS) for the proposed 525-565 Conestogo Road development located in Waterloo, Ontario. This assessment was completed to support the Official Plan and Zoning By-law Amendment submission as required by the City of Waterloo. The proposed development will consist of 2 blocks of mixed-use mid-high-rise density, 5 blocks of mid-high-rise density residential developments, 4 medium density residential developments, 4 low-rise mixed-use office buildings, and a reimagined hydro corridor encompassing a total of 15 buildings.

The potential for vibration influences on site due to the adjacent Grand River Transit ION light rail 301 was evaluated. Measured levels of light rail passes were below the applicable limits. Thus, no mitigation measures for vibration are required for the proposed development site.

The potential noise impact from stationary sources of sound were evaluated. Based on the noise modeling results and setback distances, the land use compatibility of the proposed development with respect to the nearby industrial land-uses is considered acceptable from the noise impact perspective. However, due to the proximity of the proposed development to the commercial and industrial facilities, a warning clause is recommended to inform prospective occupants of the potential for audible noise from these facilities. Further, it is recommended that the character of the transformer station sound is considered in the sound insulation design of the façade and glazing of the nearby buildings (Blocks 5 and 7B).

The following noise control measures are recommended for the proposed development:

1. Suite bedroom window glazing with sound isolation performance up to STC-33.
2. Exterior doors with sound isolation performance meeting Ontario Building Code requirements for non-acoustical purposes (assumed STC-25).
3. Façade wall assembly meeting a minimum STC-45.
4. Installation of central air-conditioning so that the following building windows can remained closed for:
    i. Block 1A
    ii. Block 1B
    iii. Block 1C
    iv. Block 2A
    v. Block 2B
    vi. Block 3A (tower only)
    vii. Block 3B
    viii. Block 6
    ix. Block 8C
    x. Block 8D

5. At a minimum, the provision for future installation of central air conditioning is recommended for the proposed development's buildings located on:
    i. Block 3A (podium)
    ii. Block 4
    iii. Block 5
    iv. Block 7A
    v. Block 7B
        i. Block 8A
        ii. Block 8B
6. Construction of perimeter noise barriers along the outdoor amenity areas: OLA_01, OLA_03, OLA_06, and OLA_07 if feasible, or the applicable warning clause.
7. The inclusion of noise warning clauses related to:
    - Transportation sound levels in outdoor amenity areas (OLAs) and at the building façade
    - Proximity to commercial and industrial facilities

Based on the results and recommendations included with this assessment; the proposed development is considered to be feasible from the noise and vibration impact aspect.

VERSION HISTORY

Index	Date	Description	Prepared by	Reviewed by
1	20/08/28	Draft	EMJI	MJT
2	20/09/09	Final	EMJI	MJT, BJC
3	21/02/03	Revision to address RMoW comments (draft)	MPP	MJT. BJC
4	21/02/05	Revision to address RMoW comments (Final)	MPP	MJT, BJC
5	21/04/26	Updated site plan with revised building massing	EMJI	MJT, BJC

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1 INTRODUCTION

RWDI was retained to prepare a Noise and Vibration Impact Study (NVIS) for the proposed 525-565 Conestogo Road development located in Waterloo, Ontario. This assessment was completed to support the Official Plan and Zoning By-law Amendment submission as required by the City of Waterloo. The proposed development will consist of 15 buildings: residential, residential-retail, and office buildings. The context plan is shown in Figure 1. A preliminary render is shown below in Figure 2. The project site plan is included with Appendix B.

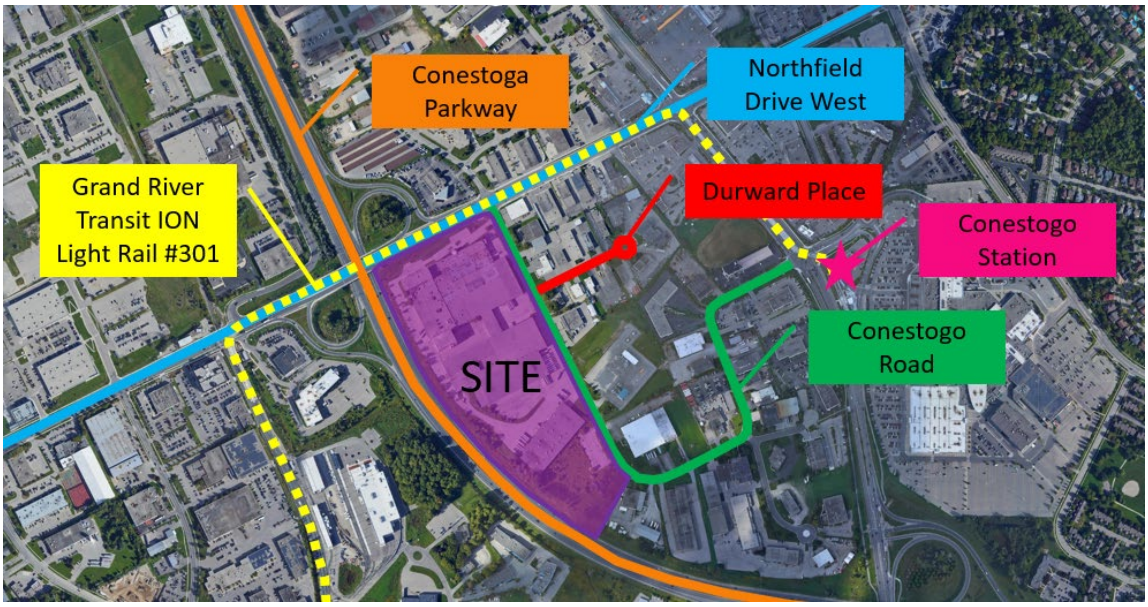


Figure 1: Key Plan

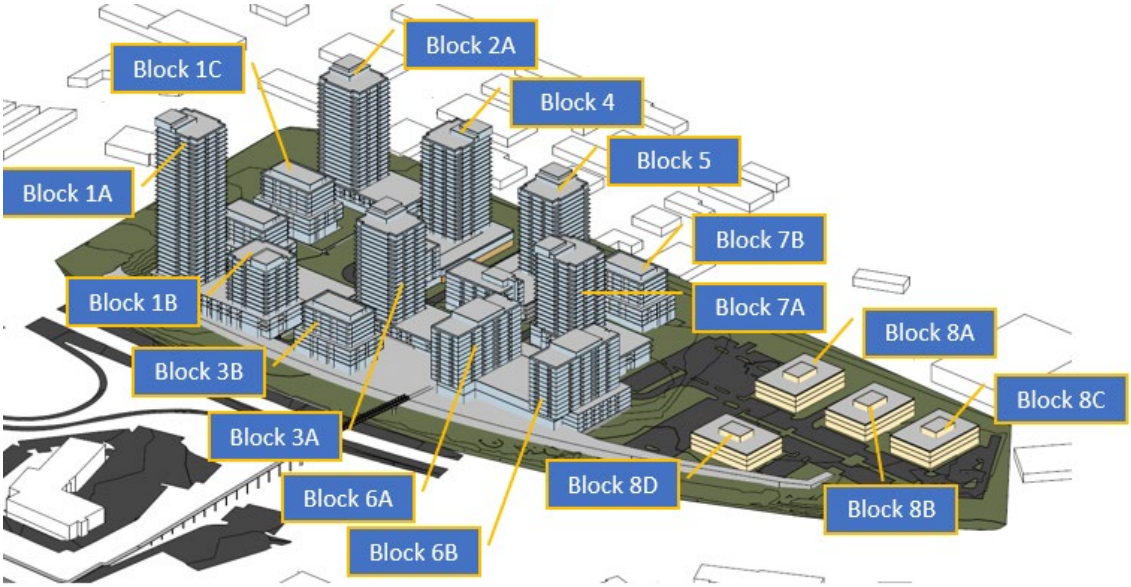


Figure 2: Rendering of Proposed Development - View from West

The site is exposed to noise from road traffic from Conestoga Parkway to the west, Conestogo Road and Durward Place to the east and Northfield Drive to the north. The site is exposed to noise from rail traffic from the Grand River Transit ION light rail #301. The site is potentially exposed to vibration from the Grand River Transit ION light rail #301 route, which was also assessed.

The potential noise impact from Conestogo Station, is located further than 500m away from the site, and was therefore not included in the assessment. A screening level assessment of nearby stationary sources was conducted. Conservative assumptions for potential noise emissions from Class I and Class II facilities within 70-meters from the development property line were included in the stationary source assessment. No Class III facilities were identified within the potential 300-meter zone of influence.

This assessment was based on the site plan drawing received April 13th, 2021.

The Owner and Consultant Statutory Declarations are included in Appendix A.

2 APPLICABLE CRITERIA

Applicable criteria for transportation noise sources (road and rail), stationary noise sources and rail vibration are described in this section.

2.1 Transportation Sources

Guidance from the Regional Municipality of Waterloo (RMOW) Noise Guidelines was used to assess environmental noise generated by transportation-related sources. The Ontario Ministry of the Environment, Conservation and Parks (MECP) NPC-300 Environmental Noise Guideline is the same and/or more stringent than the RMOW Noise Guidelines, therefore we used the most stringent requirement of both documents. There are three aspects to consider, which include the following:

1. Transportation noise levels in indoor living areas (living rooms and sleeping quarters), which determines building façade elements (windows, exterior walls, doors) sound insulation design recommendations.
2. Transportation noise levels at the plane of the window, which determines air-conditioning and ventilation system recommendations and associated warning clauses which inform the future occupants that windows and doors must be closed in order to meet the indoor sound level criteria.
3. Transportation noise levels in Outdoor Living Areas (OLAs), which determines OLA noise mitigation and related warning clause recommendations.

OLA's would include outdoor areas intended and designed for the quiet enjoyment of the outdoor environment and are readily accessible from the building. OLA's may include any common outdoor amenity spaces associated with a multi-unit residential development (e.g. courtyards, roof-top terraces), and/or private backyards and terraces with a minimum depth of 4m provided they are the only outdoor living area for the occupant.

2.1.1 Road and Rail

For assessing sound originating from transportation sources, NPC-300 defines sound level criteria as summarized in Table 1 for outdoor living areas (OLAs), and indoor areas of sensitive uses.

Table 1: NPC-300 Sound Level Criteria for Road and Rail (Indoors)

Assessment Location	Time Period	NPC-300 Limit L_{EQ} (averaged over time period)		Comments
		Road	Rail	
Indoor Living Quarters	16 hr Daytime 0700-2300h	45 dBA	40 dBA	Building façade components should be specified to achieve the indicated indoor sound levels based on the assumption of a closed window.
	8 hr Nighttime 2300-0700h			
Indoor Sleeping Quarters	16 hr Daytime 0700-2300h	45 dBA	40 dBA	
	8 hr Nighttime 2300-0700h	40 dBA	35 dBA	
Outdoor Living Areas	16 hr Daytime 0700-2300h	55 dBA Combined Road & Rail		If technically and economically feasible, noise barriers should be used to achieve 55 dBA sound levels in OLAs. Otherwise a warning clause would be recommended for sound levels between 56-60 dBA.
General offices, reception areas, retail stores, etc.	16 hr Daytime 0700-2300h	50 dBA	45 dBA	Guideline for best design practices.

Ventilation and warning clauses requirements for residential buildings are determined based on predicted levels of transportation noise at the exterior Plane of Window (POW) as summarized in Table 2 below.

Table 2: Ventilation, Building Component, and Warning Clauses Recommendations for Road and Rail

Assessment Location	Transportation Noise Level		Recommendations
	Daytime Leq,16-hr	Nighttime Leq,8-hr	
Plane of Window (Road & Rail)	>65 dBA	>60 dBA	Air conditioning to allow windows to remained closed. The acoustical performance of building components should be designed to meet the indoor sound level limits. Warning clause "Type D" is recommended.
	Between 55 and 65 dBA	Between 50 and 60 dBA	Applicable for low and medium density: Forced-air ventilation system to allow for the installation of air-conditioning. Warning clause "Type C" is recommended. Applicable for high density: Air conditioning to allow windows to remained closed. Warning clause "Type D" is recommended.
Plane of Window (Rail)	> 60 dBA	> 55 dBA	The acoustical performance of building façade components should be specified such that the indoor sound level limits are predicted to be achieved.
	> 60 dBA ($L_{eq,\ 24hr}$) and < 100m from tracks		Exterior walls consisting of a brick veneer or masonry equivalent for the first row of dwellings.
Outdoor Living Area (Combined Road & Rail)	Between 55 and 60 dBA	Not Applicable	Noise controls (barriers) should be implemented to meet the 55 dBA criterion. If noise mitigation is not feasible to meet the 55 dBA criterion, a Warning Clause "Type A" or "Type B" would be recommended.
	> 60 dBA	Not applicable	Generally, not acceptable. Noise mitigation required to reduce sound levels to less than 55 dBA for areas designated for the quiet enjoyment of the outdoors.

Any recommended warning clauses should be included in agreements of Offers of Purchase and Sale, lease/rental agreements and condominium declarations.

In addition to the ventilation and warning clauses; building facade components should be designed to meet the indoor sound level limits.

2.2 Stationary Sources

2.2.1 NPC-300 Criteria for Stationary Sources

Noise from stationary sources is treated differently from transportation sources and requires sound levels be assessed for the predictable worst-case 1-hour average sound level (L_{EQ}) for each period of the day. For assessing sound originating from stationary sources, NPC-300 defines sound level criteria for two types of Points of Reception (PORs): outdoor and façade.

The assessment criteria for all PORs is the higher of either the exclusion limit per NPC-300 or the minimum background sound level that occurs or is likely to occur at a POR. The applicable exclusion limit is determined based on the level of urbanization or "Class" of the area. This development is considered to be in a Class 1 (urban) area.

The NPC-300 exclusion limits for continuously operating stationary sources are summarized in Table 3. For the façade, the exclusion limits apply at the exterior plane of window; there are no indoor criteria for stationary sources.

Table 3: NPC-300 Exclusion Limits – Continuous Stationary Sources

Time Period	Exclusion Limit, Class 1 (L_{EQ-1hr})		
	Outdoor	Plane of Window	Emergency Sources
Daytime-Evening 0700-2300h	50 dBA	50 dBA	55 dBA
Nighttime 2300-0700h	--	45 dBA	--

Continuous and emergency equipment testing are assessed separately per NPC-300. The limit for testing of emergency sources such as emergency generators is 5 dB higher than the limits for continuous stationary sources. Emergency generators are assumed to be tested during daytime hours only. The sound level criterion is the higher of the applicable exclusion limit or the background sound level due to road traffic.

The sound level criteria included in NPC-300 are consistent with the criteria for stationary sources in the City of Waterloo noise by-law (2010-073).

2.2.2 D-Series Guidelines

The MECP D-series guidelines provide direction for land use planning to maximize compatibility of industrial uses with adjacent land uses. The goal of Guideline D-6 is to minimize encroachment of sensitive land uses on industrial facilities and vice versa, in order to address potential incompatibility due to adverse effects such as noise, odour and dust. Recommended minimum separation distances are provided based on the industry size and operation type.

Guideline D-6 separates industry into three broad categories, depending on the nature of their operations and the types of potential impacts:

- Class I facilities are small scale, self-contained plants or buildings, which produce and/or store products in a package and have low probability of fugitive emissions. They have daytime operations only, with infrequent movements of products and/or heavy trucks;
- Class II facilities perform medium scale processing, with some outdoor storage of wastes and materials, frequent movement of products and/or heavy trucks, and shift work; and
- Class III facilities conduct large scale manufacturing, and are characterized by their large size, large production volumes, continuous operations and movements of products, and a high probability of fugitive emissions.

The recommended minimum separation distances and areas of potential influence (i.e., distance within which adverse effects could potentially occur) are summarized in Table 4.

Table 4: Guideline D-6 Recommended Setback Distances and Area of Influence

Industry Classification	Recommended Minimum Separation Distance (m)	Potential Area of Influence (m)
Class I: Light Industry	20	70
Class II: Medium Industry	70	300
Class III: Heavy Industry	300	1000

If the minimum recommended separation distance is not met for an infilling proposal, the land use "may be acceptable subject to either the municipality or the proponent providing a justifying impact assessment" (MECP, 1995).

2.3 Rail Vibration

The generally accepted limit for sensitive land-uses is the threshold of perception for human exposure to vibration, being a vibration velocity level of 0.14 mm/s RMS in any one-third octave band filtered frequencies of 4 Hz and 200 Hz. This limit is based on 1-second exponentially time-averaged maximum hold root-mean-square (RMS) vibration velocity level and is consistent with the Railway Associations of Canada (RAC, 2013) guideline, the U.S. Federal Transit Authority (FTA, 2018) criterion for residential land-uses.

3 IMPACT OF THE ENVIRONMENT ON THE PROPOSED DEVELOPMENT

3.1 Transportation Source Assessment

Sources of sound identified as having the potential to affect the proposed development include the following:

Roadways: Conestoga Parkway, Conestogo Road, and Northfield Drive West. The locations of these sources of sound in relation to the proposed development are shown in Figure 1. A scale plan is included in Appendix C showing the locations of these road and rail sources.

3.1.1 Road Traffic Volume Data

The AADT's for the west leg of Northfield Drive and the south leg of Conestogo Road were provided and forecasted to 2030 by the Region of Waterloo. A 90%/10% daytime/nighttime split was applied for these roads per the Region of Waterloo. The City of Waterloo provided data for Highway 85 (Conestoga Parkway). An 85%/15% daytime/nighttime split was applied for the Highway 85. The traffic volume for Highway 85 was grown at a rate of 2% per year to represent the predicted traffic volumes of 2030. A summary of the traffic data used is included in Table 5 below with more detailed information included in Appendix C.

Table 5: Road Traffic Data Summary

Roadway	Future Traffic (AADT)	% Day/ %Night	Post Speed Limit (km/hr)	% Heavy Trucks Day
Conestoga Parkway (Hwy 85)	52,500[1]	85 / 15	90	7.2
Conestogo Road (South)	3,200	90 / 10	50	7.6
Northfield Drive West	31,100	90 / 10	60	4.1

Notes: [1] Future traffic volumes for Highway 85 were based on 2% growth rate forecasted to 2030

3.1.2 Rail Traffic Volume Data

Rail traffic for the Grand River Transit (GRT) ION Light Rail #301 traffic occurs along Northfield Drive West, 15m north of the proposed development. Rail traffic data for ION 301 was obtained from the GRT website and was assumed to have a 2.5% annual growth rate to account for traffic in 2030. ION at the Region of Waterloo was contacted regarding future forecasted volumes, but at the time of this report a response was yet to be received. The data used for the analysis is summarized in Table 6, with details of the data used included in Appendix C.

Table 6: Future Train Volumes (2030)

Train Type	Daytime	Nighttime	Speed (km/h)
Grand River Transit ION Light Rail #301	71	13	50

Note [1] Rail traffic data for ION 301 was assumed to have a 2.5% annual growth rate to account for traffic in 2030.

3.1.3 Representative Receptors

The selection of receptors affected by transportation noise sources was based on the drawings reviewed for this assessment. Using the "building evaluation" feature of Cadna/A, each façade of the residential buildings was assessed.

Daytime sound levels were assessed at the following Outdoor Living Areas (OLAs):

1. OLA_01: Block 2A, Podium – Level 4
2. OLA_02: Block 1AB, Podium – Level 4
3. OLA_03: Block 3A, Podium – Level 4
4. OLA_04: Block 4, Podium – Level 3
5. OLA_05: Block 5, Podium – Level 3
6. OLA_06: Block 6, Podium – Level 5
7. OLA_07: Block 7, Podium – Level 4

The locations of OLAs are illustrated in Figure 3.



Figure 3: OLAs Included in the Assessment

3.1.4 Transportation Source Assessment - Analysis and Results

Sound levels due to the adjacent road and rail traffic were predicted using models in the Cadna/A software package. Modelling of the road traffic noise was conducted using the RLS-90 standard (RLS,1990), while rail traffic noise modelling was based on FTA method (FTA, 2018). This allows for full 3-D geometry to be considered including grade separations for the highways and ramps and shielding and reflections from neighbouring buildings that are adjacent to the development.

To assess the impact of transportation noise on suites, the maximum sound level on the worst-case façade of each building component was determined with the results summarized in Table 7

A sample ORNAMENT calculation was conducted as comparison to the Cadna/A and RLS-90 prediction results. The results were found to be within 2 dB. Sample calculations for both Cadna/A and ORNAMENT are provided in Appendix C for road impact for the north façade of Block 1.

Table 7: Worst-Case Predicted Sound Levels of Transportation Sources

Building	Daytime L_{EQ}, 16hr / Nighttime L_{EQ}, 8hr Façade Sound Level (dBA)				Recommendations for Sound Insulation Design, Warning Clause and/or Ventilation Requirements
	Road		GRT Light Rail		
	Day	Night	Day	Night	
Block 1A - North Tower	70	65	45	41	2
Block 1AB - Podium	70	65	45	41	2
Block 1B - South Tower	70	65	39	35	2
Block 1C	67	61	45	41	2
Block 2A - Tower	66	59	46	41	2
Block 2A - Podium	66	60	46	42	2
Block 2B	66	60	47	42	2
Block 3A - Tower	65	61	36	32	2
Block 3A - Podium	63	58	35	30	1
Block 3B	70	65	38	33	2
Block 4B - East Tower	60	55	39	35	1
Block 4A - West Tower	56	51	38	34	1
Block 4 - Podium (retail)	61	55	38	34	3
Block 5B - East Tower	60	55	37	33	1
Block 5A - West Tower	59	55	35	30	1
Block 5 - Podium (retail)	61	54	36	32	3
Block 6A - North Tower	70	65	36	31	2
Block 6B - South Tower	70	65	34	30	2
Block 6 - Podium	68	63	34	30	2
Block 7A - Tower	62	58	35	30	1
Block 7A - Podium	58	53	32	28	1
Block 7B	60	54	36	32	1
Block 8A	61	55	33	29	3
Block 8B	63	59	32	28	3
Block 8C	65	61	32	27	3
Block 8D	68	64	30	26	3

NOTES:

1. Applicable for low and medium density developments: Provision for future installation of air-conditioning, warning clause "Type C".

   Applicable for high density developments: Installation of air-conditioning to allow for windows and doors to remain closed, warning clause "Type D".
2. The acoustical performance of building components must be specified to meet the indoor sound level criteria. Installation of air conditioning to allow for windows and doors to remained closed, warning clause "Type D".
3. Commercial: The acoustical performance of building components is recommended to be specified to meet the indoor sound level guideline criteria. Warning clauses are not applicable for commercial areas.

To assess the impact of transportation noise on the qualifying OLAs for the development, predicted sound level results are summarized Figure 4 below.



Figure 4: OLA Predicted Sound Levels, Road and Rail

3.2 Stationary Source Assessment

3.2.1 Stationary Sources – Guideline D6 Compatibility Assessment

RWDI conducted a screening level land-use compatibility assessment based on the guidance of the Ministry of the Environment D-6 Guideline (MOE, 1995a). Stationary sources of noise surrounding the proposed development were identified using a combination of source identification during two site visits conducted on July 29th, 2020 and January 27th, 2021, publicly available aerial and street-level imagery, business listing and The Ministry of the Environments Access Environment database. Classes were assessed using the noise impact perspective, as an air quality review was not considered for this study. A scale plan is included in Appendix D indicating the 20 m, 70 m and 300 m D-6 Guideline setback distances for the three industry classes.

The results of the D-6 assessment from a noise impact perspective are summarized in Appendix D, Table D01 and Figure D01. The results of the D-6 assessment indicate that the nearby facilities are beyond the setback distance from noise sensitive (residential) buildings for the proposed development; however, some facilities would be within the setback distance from the property line for the full development.

Based on comments received for a previous noise impact study report submission, The Regional Municipality of Waterloo has indicated that there is a concern due to the potential noise impact from nearby industrial facilities, and specifically from the nearby Transformer Station (identified in Appendix D, Figure D01 as #8). As such, supplementary noise modeling has been conducted to further inform the stationary source assessment.

3.2.2 Stationary Sources – Noise Modeling

Stationary source noise modelling was carried out using the Cadna/A software package, a commercially available implementation of the ISO 9613 (ISO, 1994 and ISO, 1996) algorithms.

Continuously operating stationary sources were included for each industry class within the recommended minimum separation distance, based on a property line to property line assessment (refer to Appendix D, Figure D01 and Table D01). Impulsive sources of sound were not identified in the area during any of the site visits conducted by RWDI. As such, the potential impulsive noise impact was not assessed further for this study.

The facilities included in the stationary source noise modeling are described below in Table 8 with operations class designation based on the D-6 Guideline assessment. Facility reference numbers are indicated in Table 8 and in Appendix D Figure D01.

Table 8: Stationary Source Assessment (Refer to Figure 5 and Appendix D – Figure D01)

Reference # in Fig. D01	Facility Name	Operating Hours	Operations	Class	ECA #
1	Benson Autoparts	08:00-17:30	Auto parts store	Class I	n/a
2	Swenco Limited	08:00-17:00	Safety equipment supplier	Class I	n/a
4	Baseline Constructors Inc	Not available	General Contractor	n/a	n/a
6	K-W Fuel Injection Ltd	08:00-04:30	Diesel engine repair service	Class I	n/a
7	Academy Construction 1996 Ltd	07:00-17:00	General contractor	n/a	n/a
8	Waterloo North Hydro H.M. Scheifele TS	00:00-24:00	Electrical substation	Class II	n/a
9	Riverside Millwork Group	07:30-17:00	Building materials store	Class I	n/a
10	Day Dreamer Accessories Inc.	10:00-19:00	E-commerce service	Class I	2546-4WUS6T (stormwater management pond)
21	Prime Metal Service Centre	08:00-17:00	Metal finisher	Class II	n/a
36	515 Conestogo Road	Not available.	Storm Water Management (possibly no longer in use as new owner)	n/a	2546-4WUS6T

3.2.2.1 Assumed Sources and Sound Power Levels

Stationary sources of noise surrounding the proposed development were identified using a combination of site visits conducted on July 29th, 2020 and January 27th, 2021, publicly available aerial imagery and street-level imagery.

RWDI proxy data were used for the sound power levels of the HVAC units, dust collector and idling trucks included in the model. Theoretical engineering calculations were used to develop the sound power levels of the Scheifele TS transformers, which were then confirmed to be representative through sound level measurements at the transformer station property line, and proposed development property line (refer to section 3.2.2.2). The assumed sound power levels are presented in Table 9. The locations of the sources summarized in Table 9 included in the stationary source assessment are illustrated in Figure 5.

Table 9: Stationary Source Sound Power Level Assumptions

Source	Proxy Data / Calculation	Sound Power Level (dBA)	Duty Cycle	
			Daytime and Evening (07:00h – 23:00h)	Nighttime (23:00h – 07:00h)
HVAC_1Fan	Proxy Data	82	Continuous	Continuous
HVAC_2Fan	Proxy Data	85	Continuous	Continuous
HVAC_4Fan	Proxy Data	88	Continuous	Continuous
Idling Truck	Proxy Data	92	15min/hour	15min/hour
Dust Collector	Proxy Data	92	Continuous	Off Duty
Scheifele TS Transformer (83 MVA)	Calculation	92[1]	Continuous	Continuous
Scheifele TS Transformer (67 MVA)	Calculation	88[1]	Continuous	Continuous

NOTES:

1. Transformer sound power levels include a 5dB penalty for tonality. Sound power level calculations are presented in Appendix D.

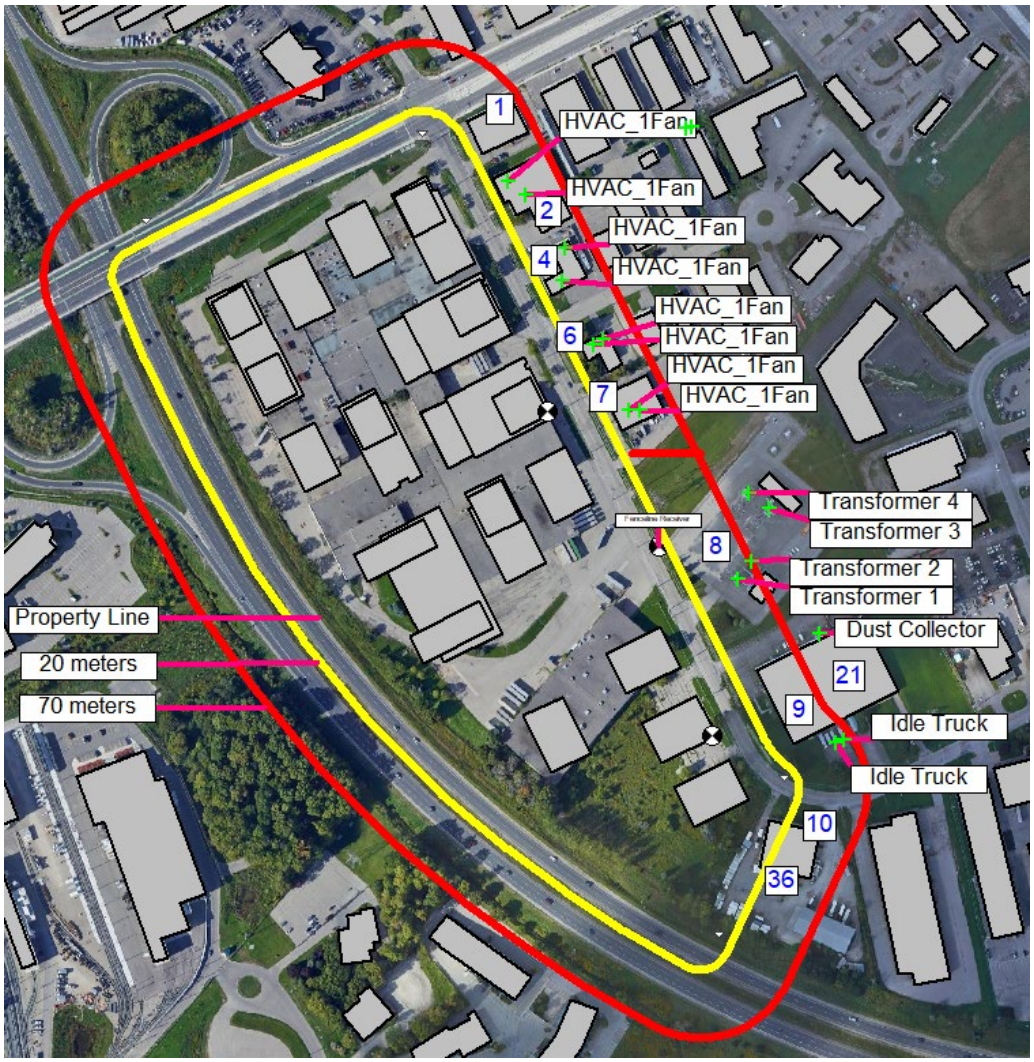


Figure 5: Sources included in the stationary sources noise model.

The assumed sound power level values and duty-cycles for the stationary sources are based on reasonable assumptions for the source type. Continuous operation of the HVAC units and idling trucks at area facilities represent the worst-case hour for the daytime and nighttime periods. Continuous daytime operation of the dust collector at Prime Metal Service Center (D06 ref# 21) represents the worst-case hour for the daytime period. Nighttime operation of the dust collector outside of regular business hours (0800-1700) is not anticipated.

3.2.2.2 Scheifele MTS Transformers

The Scheifele MTS transformer sound level ratings are based on information presented in the Kitchener Waterloo Cambridge Guelph Regional Needs Assessment Report (Hydro-One, 2018). According to the Hydro-One Needs Assessment Report (Hydro-One, 2018), the Scheifele MTS T1 and T2 67 MVA transformers have been identified to require replacement in the 2024-2026 timeframe.

Transformer sound power level calculations were based on the National Electrical Manufacturers Association (NEMA) sound level rating and are based on physical size of the transformer, plus a 5 dB penalty for tonality in accordance with NPC-104 (MOECC, 1978). A summary of the Scheifele MTS transformer sound power calculations is included in Appendix D.

Property line sound pressure level measurements were conducted of the Scheifele transformer station during a site visit on January 27, 2021 between 9:00am and 10:00am. Sound level measurement were taken with a Larson Davis Type 824 analyzer and type 1 sound level meter (S/N 824A1104). Sound level measurements and weather conditions (sunny and clear, slight breeze at 4m/s, -7 °C) were in accordance to the guidance included in NPC-103 (MOECC, 1978).

The sound level measurement locations at the transformer station property line, and the proposed development property line are indicted in Figure 6. The results of the site measurements are summarized in Table 10.

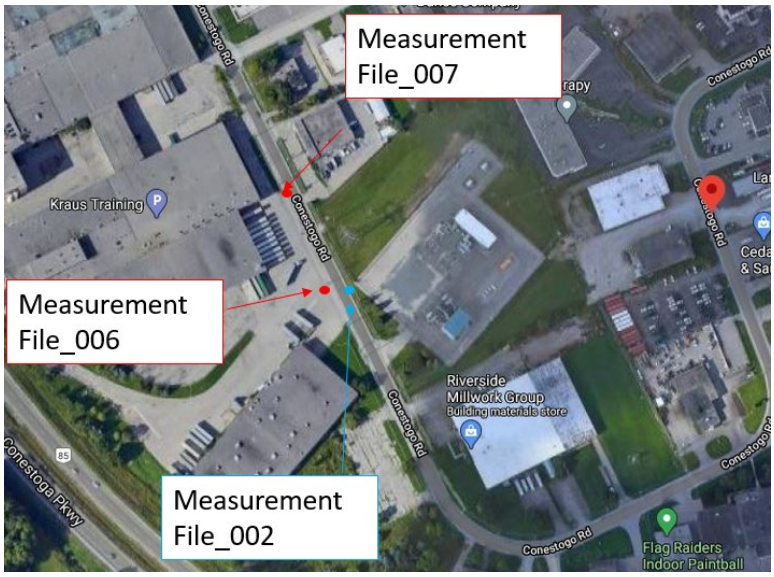


Figure 6: Property Line Sound Level Measurement Locations

Table 10: Transformer Sound Level Evaluation

Assessment Location	Sound Level
Transformer Station Property Line Spot Measurement (File_002)[1]	50 dBA
Proposed Development Property Line Spot Measurement (File_006) [1]	48 dBA
Proposed Development Property Line Spot Measurement (File_007) [1]	47 dBA
Predicted Road Traffic Noise Contribution (File_006 location) [2]	*46 dBA*
Development Property Line (File_006 location) Predicted Transformers Station Contribution Based on Site Measurements (Road Traffic Contribution Subtracted)	*44 dBA*
Predicted contribution at property line measurement location (File_006) based on calculated transformer sound power levels (no penalty for tonality included)[3]	*43 dBA*

NOTES:

1. Measurement (File_###) corresponds to 210127 Conestogo Road 2002470 spot measurement file name presented in Figure 6.
2. Predicted road noise includes only Conestogo Parkway (Hwy 85) and Northfield Drive based on an assumed hourly volume of 2% of the current AADT during the measurement period. Predicted road noise contribution omits Conestogo Road source contribution, as measurements were paused during vehicle passes on this road.
3. Transformer sound power level calculations are included with Appendix D.

As seen in Table 10, the predicted contribution due to the transformer station alone is consistent with the predicted sound levels at the measurement position based on calculated transformer sound ratings assuming "quieted" transformers. As such, the sound levels based on the NEMA sound level ratings are considered to be appropriate and representative of the transformer station sound levels for the purpose of this assessment.

We recommend that Hydro-One review and confirm the assumptions used in this analysis are representative of the potential noise impact of a predictable worst-case scenario of the Scheifele MTS operations.

3.2.3 Predicted Noise Impact at Representative Receptors

Representative receptors assessed are identical to the receptors described above in Section 3.1.3. Worst-case façades points of reception were assessed to evaluate the potential stationary source noise impact using the "building evaluation" feature of Cadna/A, however for the stationary source modeling only the residential receptors are reported for cumulative impact of the worst-case scenario. The seven OLAs previously identified in Figure 3 were also evaluated as outdoor points of reception to determine the stationary source noise impact at the outdoor amenity area.

The building block designations and proposed uses and OLAs assessed for stationary source assessment predicted sound level results are summarized Figure 7 below.

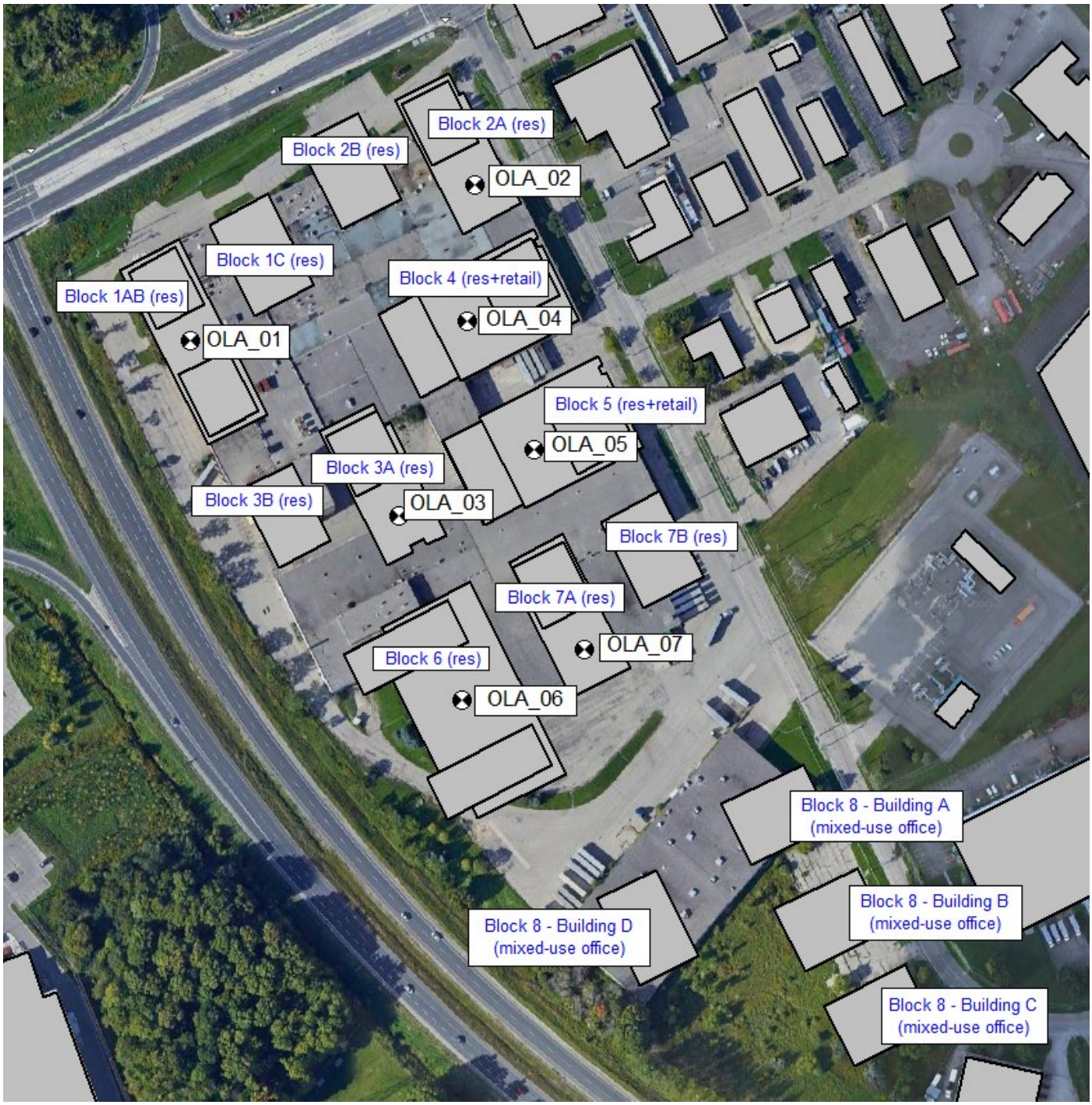


Figure 7: Stationary Source Assessment OLAs and Block Designations

The noise model is an assumed representative predictable worst-case assessment with all sources modeled to be operating concurrently. The results of the stationary source model are included with Table 11. A sample calculation is included with Appendix D.

The results of the noise model indicate a predicted minor exceedance (1-2 dB) of the strictest nighttime sound level criterion at two receptor locations: Block 5 – Tower East and Block 7B. The 1-2 dB exceedance is caused by the cumulative impact of all the nearby stationary sources, and not from one specific facility or source.

Based on the noise modeling results and setback distances, the proposed development is not anticipated to infringe on the compliance of any industrial operations with environmental permits (ECA or EASR), nor cause infractions against the local noise by-law (By-Law 2010-073). As such, the land use compatibility of the proposed development with respect to the nearby industries is considered acceptable from the noise impact perspective.

Table 11: Exclusion Limit Comparison to Continuous Stationary Source Façade Sound Levels

Building	Façade / Receptor Location	Stationary Source Façade Sound Levels (dBA)		NPC-300 Exclusion Limit (dBA)		Comments
		Daytime/Evening L_{EQ}, 1hr	Nighttime L_{EQ}, 1hr	Daytime L_{EQ}, 16hr	Nighttime L_{EQ}, 8hr	
Block 1A -	South	35	34	50	45	Meets NPC-300 criteria
Block 1B -	East	34	34	50	45	Meets NPC-300 criteria
Block 1AB - Podium	East	26	26	50	45	Meets NPC-300 criteria
Block 1AB	OLA_02	41	n/a	50	-	Meets NPC-300 criteria
Block 1C	East	35	35	50	45	Meets NPC-300 criteria
Block 2A -	East	44	44	50	45	Meets NPC-300 criteria
Block 2A - Podium	East	45	45	50	45	Meets NPC-300 criteria
Block 2A	OLA_01	24	n/a	50	-	Meets NPC-300 criteria
Block 2B	East	38	38	50	45	Meets NPC-300 criteria
Block 3A -	East	40	39	50	45	Meets NPC-300 criteria
Block 3A	OLA_04	26	n/a	50	-	Meets NPC-300 criteria
Block 3A - Podium	South	34	34	50	45	Meets NPC-300 criteria
Block 3B	South	29	28	50	45	Meets NPC-300 criteria
Block 4B - East Tower	East	46	45	50	45	Meets NPC-300 criteria
Block 4A - West Tower	East	38	38	50	45	Meets NPC-300 criteria
Block 4	OLA_05	36	n/a	50	-	Meets NPC-300 criteria
Block 5B - East Tower	East	47	46	50	45	Marginal exceedance (1 dB) predicted during nighttime

Building	Façade / Receptor Location	Stationary Source Façade Sound Levels (dBA)		NPC-300 Exclusion Limit (dBA)		Comments
		Daytime/Evening L_{EQ}, 1hr	Nighttime L_{EQ}, 1hr	Daytime L_{EQ}, 16hr	Nighttime L_{EQ}, 8hr	
Block 5A - West Tower	East	40	40	50	45	Meets NPC-300 criteria
Block 5	OLA_03	36	n/a	50	-	Meets NPC-300 criteria
Block 6A - North Tower	South	41	39	50	45	Meets NPC-300 criteria
Block 6B - South Tower	East	43	42	50	45	Meets NPC-300 criteria
Block 6 - Podium	East	44	43	50	45	Meets NPC-300 criteria
Block 6	OLA_06	32	n/a	50	-	Meets NPC-300 criteria
Block 7A - Tower	East	45	44	50	45	Meets NPC-300 criteria
Block 7A - Podium	South	46	45	50	45	Meets NPC-300 criteria
Block 7B	East	48	47	50	45	Marginal exceedance (2 dB) predicted during nighttime
Block 7	OLA_07	40	n/a	50	-	Meets NPC-300 criteria

3.3 Vibration Assessment

3.3.1 Light Rail Vibration Assessment – Analysis and Results

Due to the proximity of the GRT ION Light Rail #301 line to the proposed development, the potential for light rail passes to result in perceptible vibration, within the new development, was also evaluated. Attended vibration measurements were conducted at the site of the proposed development by RWDI during the site visit. Measurements were taken with a Bruel & Kjaer Type 2270 Analyzer complete with the BZ7234 Enhanced Vibration and Low Frequency Option module, with the 2-channel analysis option, coupled with two PCB Piezotronics Type 393A03 accelerometers.

Measurements were conducted over an approximate 1-hour period at two locations onsite (July 29, 2020 from 12:26–13:12). During this time a total of 12 light rail passes were monitored between two locations. Trains for each direction, east and west, coincided in passing each other in front of the location for a total of 6 measurements. Locations can be seen in a scale plan in Appendix E. Locations 1 and 2 were both at ground level. The data was logged for each measurement period (~10min) with multiple passes.

Vibration due to light rail passes were not perceptible on site. The measured vibration levels were below the 0.14mm/s vibration criterion and therefore vibration mitigation is not required.

3.4 Recommendations

Based on an analysis of the predicted sound levels and measured vibration levels, the following recommendations and requirements were determined for the project. Recommendations are provided for both transportation sources and stationary sources.

3.4.1 Transportation Sources

The following recommendations are provided to address transportation sources.

3.4.1.1 Building Façade Components

Due to the elevated transportation sound levels in the area, acoustical design of the façade components including spandrel, window glazing, and exterior doors, are recommended to be specified for the proposed development.

To assess the development's feasibility, preliminary window glazing, and exterior balcony door sound isolation requirements were determined. These were based on following assumptions:

- Estimates of window glazing and exterior door area relative to room floor area:
  - Residential - bedrooms:
    - Glazing 60% of façade, Door: 20% of façade
    - 81% Façade to floor area Ratio
  - Residential – living room:
    - Glazing 60% of façade, Door: 20% of façade
    - 55% Façade to floor area Ratio
  - Commercial - retail and office:
    - Glazing 60% of façade, Door: 20% of façade
    - 55% Façade to floor area Ratio
- Acoustical character of rooms
  - Intermediate absorption finishes/furniture
- Spandrel/façade wall assembly achieves minimum STC 45 rating
- Exterior doors meeting a minimum STC-25.

Based on the predicted façade sound levels and the assumptions listed above, the window glazing and exterior door sound insulation requirements for each facade were determined using the BPN-56 (NRCC, 1985) method. The reported results are in terms of Sound Transmission Class (STC) ratings as summarized in Table 12.

Table 12: Facade Component Minimum Sound Insulation Requirements

Building Component	Window STC
Block 1A - North Tower	STC-33
Block 1AB - Podium	STC-33
Block 1B - South Tower	STC-33
Block 1C	STC-28
Block 2A - Tower	STC-27
Block 2A - Podium	STC-27

Building Component	Window STC
Block 2B	STC-27
Block 3A - Tower	STC-27
Block 3A - Podium	OBC
Block 3B	STC-33
Block 4B - East Tower	OBC
Block 4A - West Tower	OBC
Block 4 - Podium (retail)	OBC
Block 5B - East Tower	OBC
Block 5A - West Tower	OBC
Block 5 - Podium (retail)	OBC
Block 6A - North Tower	STC-33
Block 6B - South Tower	STC-33
Block 6 - Podium	STC-30
Block 7A - Tower	OBC
Block 7A - Podium	OBC
Block 7B	OBC
Block 8A	OBC
Block 8B	OBC
Block 8C	STC-21
Block 8D	STC-24

NOTE: "OBC" denotes typical windows/doors that meet the minimum requirements of the Ontario Building Code (e.g. for structural and thermal insulation requirements). The specialized acoustical design of the glazing, door and façade is not required in these cases.

The maximum requirement for the window glazing was determined to be STC-33, which is considered feasible as this can be achieved by various double-glazed configurations of insulated glazing units.

Taking into account the assumptions used as a basis to determine the glazing requirements, the indoor transportation source sound level criteria are predicted to be achieved.

We recommend that the façade construction is reviewed during detailed design to ensure that the indoor sound level limits will be met, and that the window/door supplier is requested to provide STC laboratory test reports as part of shop drawing submittal to confirm that the glazing/door components will meet the minimum STC requirements.

3.4.1.2 Ventilation Requirements

Due to the transportation sound levels at the plane of the façade, installation of central air conditioning is recommended for the proposed development's buildings located on:

- Block 1A
- Block 1B
- Block 1C
- Block 2A
- Block 2B
- Block 3A (tower only)
- Block 3B
- Block 6
- Block 8C
- Block 8D

Due to the transportation sound levels at the plane of the façade, at a minimum, the provision for future installation of central air conditioning is recommended for the proposed development's buildings located on:

- Block 3A (podium)
- Block 4
- Block 5
- Block 7A
- Block 7B
- Block 8A
- Block 8B

In general, the ventilation system should meet the following conditions as per NPC-300:

- the noise produced by the proposed ventilation system in the space served does not exceed 40 dBA. In practice, this condition usually implies that window air conditioning units are not acceptable;
- the ventilation system complies with all national, provincial and municipal standards and codes;
- the ventilation system is designed by a heating and ventilation professional; and
- the ventilation system enables the windows and exterior doors to remain closed.

Further, prospective residential purchasers or tenants in the above listed buildings should be informed by a warning clause "Type D" or "Type C", as applicable. The wording of the warning clauses are presented in Section 3.4.4.

3.4.1.3 Outdoor Living Areas

Due to exposure of noise from the adjacent Highway 85, Conestogo Road, Northfield Drive West, and GRT rail corridor, noise levels in OLAs are expected to be elevated. The combined (rail and road) daytime average sound levels for the OLAs are in the range of 49-59 dBA largely due to the elevated Highway 85.

In order to reduce the levels for each of these OLAs to meet the 55 dBA limit, with the use of only localized barriers, the noise barrier locations (in blue) and heights, shown in Appendix F would be required. Note that any noise barriers must be solid in construction (minimum surface weight of 20 kg/m^2 for ground level and 10 kg/m^2 for rooftop level) and free of gaps and cracks.

As show in Appendix F, the barrier heights that would be required for the 55 dBA limit are:

- OLA_01: 1.5 m
- OLA_03: 1.4 m
- OLA_06: 0.4 m
- OLA_07: 1.0 m

For OLA_1, OLA_03, OLA_06 and OLA_07, if the recommended barrier height is demonstrated to not be feasible from a technical or economical perspective, a shorter noise barrier would be allowable. In this case, with any shorter noise barrier, the allowable 5 dB exceedance (up to 60 dBA) would be met. In this case, prospective purchasers or tenants should be informed of transportation sound levels by a warning clause "Type B".

If no noise barrier is used for OLA_1, OLA_03, OLA_06 and OLA_07, prospective purchasers or tenants should be informed of transportation sound levels by a warning clause "Type A".

Since common OLAs are intended for the use by everyone in the building, every resident in the respective building should receive the warning clause. The wording of the "Type A" or "Type B" warning clauses are presented in Section 3.4.4.

3.4.2 Stationary Sources

Based on the noise modeling results and setback distances, the proposed development is not anticipated to infringe on the compliance of any commercial or industrial operations with environmental noise permits (ECA or EASR), nor cause infractions against the local noise by-law (By-Law 2010-073). As such, the land use compatibility of the proposed development with respect to the nearby industries is considered acceptable from the noise impact perspective.

The sound level from the transformer station is predicted to meet the applicable sound level criteria at the proposed development; however, it is recommended that the character of the transformer station sound is considered in the sound insulation design of the façade and glazing of the nearby buildings (Blocks 5 and 7B). Further, we recommend that Hydro-One review and confirm the assumptions used in this analysis are representative of the potential noise impact of a predictable worst-case scenario of the Scheifele MTS operations.

Due to the proximity of the proposed development to the commercial and industrial facilities, a warning clause Type E is recommended to inform prospective occupants of the potential for audible noise from these facilities.

3.4.3 Rail Vibration

The measurements demonstrated that the vibration produced by light-rail transit passes are well within acceptable limits. Therefore, vibration mitigation is not required for the proposed development.

3.4.4 Warning Clauses

Warning clauses are recommended to be included on all development agreements, offers of purchase and agreements of purchase and sale or lease. Warning clauses may be used individually or in combination.

The following warning clauses are recommended; however, wording may be modified/customized during consultation with the planning authority to best suit the proposed development:

NPC-300 Type A: Recommended to address transportation noise in OLAs if sound level is in the range of 56-60 dBA, and a noise barrier is not included.

"Purchasers/tenants are advised that sound levels due to increasing road traffic (rail traffic) (air traffic) may occasionally interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment."

NPC-300 Type B: Recommended to address transportation noise in OLAs if the sound level is in the range of 56-60 dBA

"Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road traffic (rail traffic) (air traffic) may on occasions interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment."

NPC-300 Type C: Recommended to address transportation noise in indoor spaces

"This dwelling unit has been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning by the occupant in low and medium density developments will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment."

NPC-300 Type D: Recommended to address transportation noise in indoor spaces

"This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment."

NPC-300 Type E: Recommended to address nearby commercial/industrial land-use

"Purchasers/tenants are advised that due to the proximity of the adjacent industrial/commercial land-uses, noise from the industrial/commercial land-uses may at times be audible."

4 IMPACT OF THE PROPOSED DEVELOPMENT ON ITS SURROUNDINGS AND ON ITSELF

4.1 Applicable Criteria

The noise produced by stationary noise sources associated with the development itself would be evaluated based on the NPC-300 Environmental Noise Guideline.

4.2 Recommendations

On-site stationary sources for the development are expected to consist of HVAC related equipment in the roof-top mechanical penthouse as well as various exhaust fans. Further, consideration should be given to control airborne and structure-borne noise generated within the proposed development.

Within the development itself the main sources of noise that are likely to affect the uses of the building are the mechanical systems. The potential noise impact of the commercial component of the development is recommended to be reviewed during detailed design, to ensure the applicable criteria will be met.

Provided that best practices for the acoustical design of the building are followed, noise from building services equipment associated with the development are expected to be feasible to meet the applicable sound level criteria due to the nature (residential) of the proposed development.

We recommend that the potential noise impact of the proposed development is reviewed during detailed design to ensure the applicable sound level criteria will be achieved.

5 CONCLUSIONS

RWDI was retained to complete a Noise and Vibration Impact Study for the proposed 525-565 Conestogo Road development in Waterloo, Ontario.

The following noise control measures are recommended for the proposed development:

1. Suite bedroom window glazing with sound isolation performance up to STC-33.
2. Exterior doors with sound isolation performance meeting Ontario Building Code requirements for non-acoustical purposes (assumed STC-25).
3. Façade wall assembly meeting a minimum STC-45.
4. Installation of central air-conditioning so that the following building windows can remained closed for:
    i. Block 1A
    ii. Block 1B
    iii. Block 1C
    iv. Block 2A
    v. Block 2B
    vi. Block 3A (tower only)

vii. Block 3B
viii. Block 6
ix. Block 8C
x. Block 8D

5. At a minimum, the provision for future installation of central air conditioning is recommended for the proposed development's buildings:
    i. Block 3A (podium)
    ii. Block 4
    iii. Block 5
    iv. Block 7A
    v. Block 7B
    vi. Block 8A
    vii. Block 8B
6. Construction of perimeter noise barriers along the outdoor amenity areas: OLA_01, OLA_03, OLA_06, and OLA_07 if feasible, or the applicable warning clause.
7. The inclusion of noise warning clauses related to:
    - Transportation sound levels in outdoor amenity areas (OLAs) and at the building façade
    - Proximity to commercial and industrial facilities

The potential for vibration influences on the site due to the adjacent Grand River Transit ION light rail 301 was evaluated. Measured levels of light rail passes were below the applicable limits. Thus, no mitigation measures for vibration are recommended.

Based on the noise modeling results and setback distances, the land use compatibility of the proposed development in with respect to the nearby industries is considered acceptable from the noise impact perspective.

Due to the proximity of the proposed development to the commercial and industrial facilities, a warning clause Type E is recommended to inform prospective occupants of the potential for audible noise from these facilities.

Further, it is recommended that the character of the transformer station sound is considered in the sound insulation design of the façade and glazing of the nearby buildings (Blocks 5 and 7B).

At this stage in design the impact of the development on itself and its surroundings could not be quantitatively assessed. However, the impact on both the building itself and its surroundings is expected to be feasible to meet the applicable criteria. We also recommend that the building design is evaluated prior to building permit to ensure that the acoustical design is adequately implemented in order to meet the applicable criteria.

Based on the results and recommendations included with this assessment; the proposed development is considered to be feasible from the noise and vibration impact aspect.

6 REFERENCES

1. Ontario Ministry of the Environment and Climate Change (MOECC)[1], August 2013, Publication NPC-300, Environmental Noise Guideline Stationary and Transportation Sources – Approval and Planning (NPC-300)
2. Richtlinien für den Lärmschutz an Strassen (RLS). BM für Verkehr, Bonn, 1990 (RLS, 1990).
3. Controlling Sound Transmission into Buildings (BPN-56), National Research Council Canada (NRCC, 1985).
4. The Railway Association of Canada (RAC), Guidelines for New Development in Proximity to Railway Operations (RAC, 2013).
5. ORNAMENT: Ontario Road Noise Analysis Method for Environment and Transportation: Technical Document (ORNAMENT), Schroter, V., Chiu, C., Noise Assessment and Systems Support Unit (NASS, 1989)
6. Ontario Ministry of the Environment Publication Guideline D-6, "Compatibility Between Industrial Facilities and Sensitive Land Uses", July 1995 (MOE, 1995a).
7. International Organization for Standardization (ISO), 1994b, International Standard ISO 9613-1:1994, Acoustics – Attenuation of Sound during propagation outdoors. Part 1: Calculation of the absorption of sound by the atmosphere. (ISO, 1994)
8. International Organization for Standardization (ISO), 1996, International Standard ISO 9613-2:1996, Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation (ISO, 1996)
9. Regional Municipality of Waterloo, "Implementation Guideline for Noise Policies", Adopted by Regional Council July 14, 1999. Updated October 22 2019 (RMOW, 2019).
10. Ontario Ministry of the Environment and Climate Change (MOECC), 1978, Model Municipal Noise Control Bylaw, which includes Publication NPC-103 – Procedures, and Publication NPC-104 – Sound Level Adjustments.
11. Bies, H. and Hanson, C. H. (2009), Engineering Noise Control: Theory and Practice. Spon Press, New York, USA.
12. Crocker, M. (2007), Handbook of Noise and Vibration Control. John Wiley & Sons, Inc.
13. Institute of Transportation Engineers (ITE), 2010, *Traffic Engineering Handbook, 6th Edition* (ITE, 2010)
14. Hydro One, Kitchener-Waterloo-Cambridge-Guelph "Needs Assessment Report", December 19, 2018.
15. The Corporation of The City of Waterloo, By-Law 2010-073 (Noise By-Law)

[1] Recently department name changed to Ministry of Environment, Conservation and Parks (MECP)

APPENDIX A

CANADA	)	In the Matter of the
	)	Environmental Protection
PROVINCE OF ONTARIO	)	Act and the Planning Act
	)	
	)	
	)	And in the Matter of a Noise and Vibration
	)	Impact Study for 525-565 Conestogo Road
	)	in the City of Waterloo,
	)	in the Regional Municipality
	)	of Waterloo

I, Benjamin Coulson, of the City of Guelph, in the County of Wellington, SOLEMNLY DECLARE THAT:

1. I am employed by RWDI AIR Inc. which holds a Certificate of Authorization and have personal knowledge of the matters set out below:

2. I was retained or employed as the principal consultant to undertake the assessment of noise impacts and recommendation of noise mitigation measures for the proposed property described as 525-565 Conestogo Road, Waterloo in the Regional Municipality of Waterloo.

3. I had the expertise required to perform these services. Any assessment activities or recommendations requiring the application of engineering principles have been undertaken or supervised by an engineer qualified to perform such services.

4. The information used in the study entitled "525-565 Conestogo Road, Waterloo, Ontario – Noise and Vibration Impact Study, RWDI #2002470", dated February 5, 2021 is the best available information as of the date of the study.

5. The noise level calculations, the interpretation of noise attenuation requirements, and the recommended measures are in accordance with Ministry of Environment, Conservation and Parks Guidelines, Region of Waterloo Policies, and any applicable policy or guidelines of the Area Municipality, and any other applicable policy or guideline.

6. The noise attenuation measures and recommendations proposed in this study are feasible to implement and will provide the level of attenuation indicated in the study.

7. I acknowledge that this study may be subject to a peer review conducted at my cost.

8. I acknowledge that public authorities and future owners, occupants and others may rely on this statement.

AND I make this solemn Declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath.

DECLARED before me at the City	)	
of Guelph, in the County of	)	
Wellington, this _____	)	_____
day of _____.	)	

CANADA	)	In the Matter of the
	)	Environmental Protection
PROVINCE OF ONTARIO	)	Act and the Planning Act
	)	
	)	
	)	And in the Matter of Part Lot
	)	_____
	)	in the City of _____
	)	in the Regional Municipality
	)	of Waterloo

I, _____, of the _____, SOLEMNLY DECLARE THAT:

1. I am the owner of the property, or the owner's agent, and that I understand and agree with the noise attenuation measures proposed in study entitled _____, dated _____.

2. The application has been designed to avoid the use of berms or walls as noise attenuation features where feasible. Where berms or walls are recommended, the Noise Study provides economic, planning and engineering justification.

3. If the application is changed in a way that may affect the noise level calculations, I will have a revised noise study submitted to the Region.

AND I make this solemn Declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath.

DECLARED before me at the City	)	
of _____, this _____	)	
day of _____.	)	_____

APPENDIX B

THIS DRAWING IS AN INSTRUMENT OF SERVICE & IS THE PROPERTY OF ABA ARCHITECTS INC. & CANNOT BE MODIFIED AND/OR REPRODUCED WITHOUT THE PERMISSION OF ABA ARCHITECTS INC.

THE CONTRACTOR MUST VERIFY ALL DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT, BEFORE PROCEEDING WITH THE WORK.

DRAWINGS ARE NOT TO BE SCALED.

PROJECT NORTH

No.	REVISIONS	DATE

CHRONOLOGY	DATE

aba architects inc.
165 Hanlan Drive, Unit 8, Waterloo, ON, N2L 0A8 (519) 884-2911 | www.abarchitects.ca

CLIENT
HILCO

PROJECT NAME
525-565 CONESTOGO
525-565 CONESTOGO ROAD, WATERLOO, ON. N2L 0A8

DRAWING TITLE
SITE PLAN

SCALE
1 : 850

SHEET SIZE
24X36

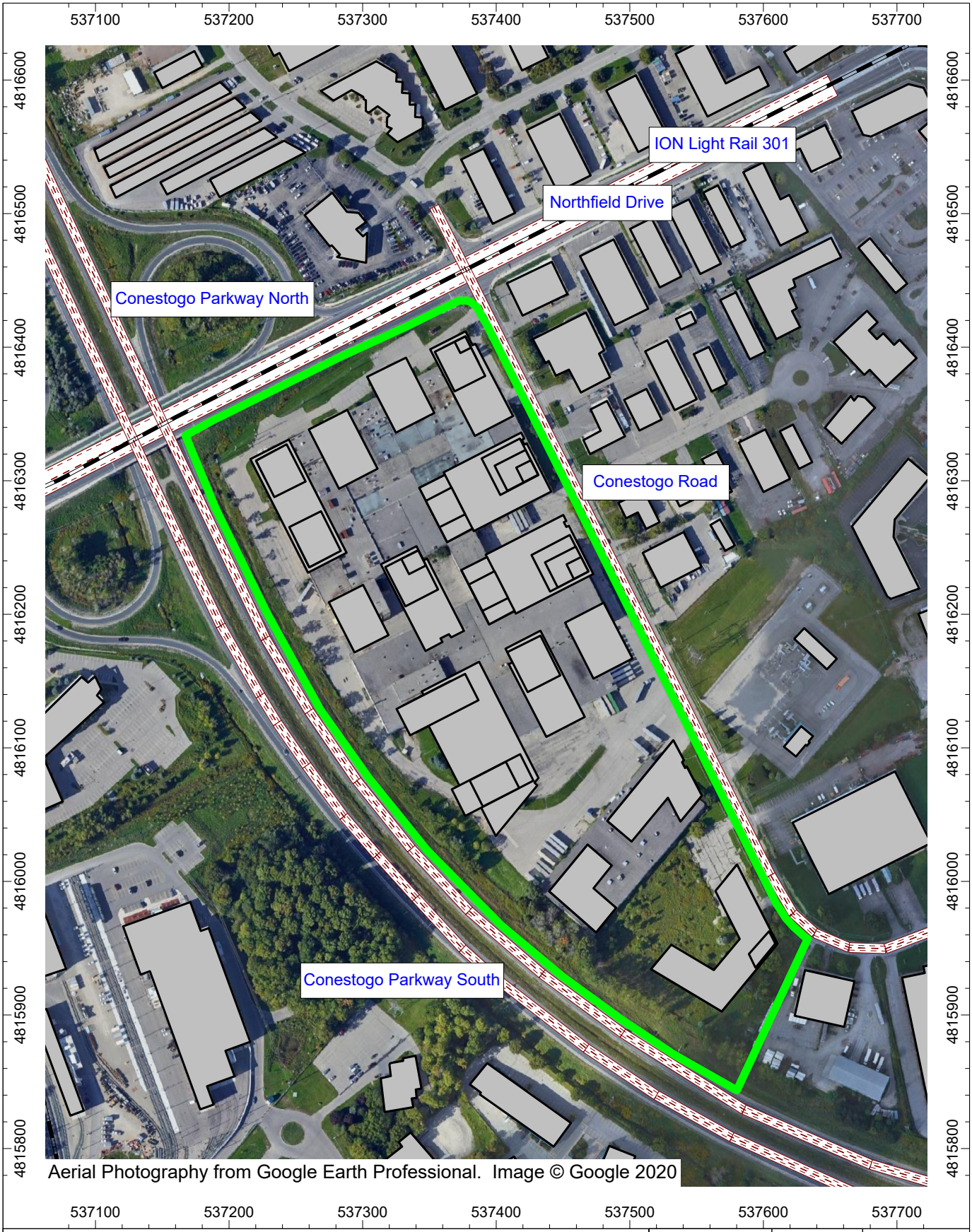
PROJECT NUMBER
2015-080

DRAWING NUMBER
ZBA 1.0

1 ZBA 1.0 SITE PLAN
1 : 850

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APPENDIX C



Road and Rail Noise Sources

525-565 Conestogo Road - Waterloo, Ontario

True North

Project #2002470

Drawn by: EMJI	Figure C-1
Scale:	1:4000
Date:	Aug. 27, 2020

Region of Waterloo AADT Forecast for Noise Studies

1. Development/Location 525-565 Conestogo Road Waterloo

2. Current AADT (2020)

Northfield Dr & Conestogo Rd	
West Leg	South Leg
26,800	2,800

3. Forecast AADT (2030)

Northfield Dr & Conestogo Rd	
West Leg	South Leg
31,100	3,200

4. Commercial Vehicle Rates

Northfield Dr & Conestogo Rd			
West Leg		South Leg	
Truck %		Truck %	
Medium	Heavy	Medium	Heavy
1.7%	2.4%	4.3%	3.3%

5. Posted Speed Limit

Northfield Dr & Conestogo Rd	
West Leg	South Leg
60 km/h	50 Km/h

6. Day/Night Splits Regional Standard 90/10 Day/Night Split

7. Validity Period December 31st, 2022

8. Notes

This forecast is to be used to carry out a noise study only for the above proposed development. The above represents AADTs at the West and south legs of Northfield Drive & Conestogo Road intersection considering Northfield Drive runs East-West . These forecasts will be valid to the date indicated above. The Region of Waterloo should be contacted for an update if there are plans to use this forecast beyond the above validity period. Conestogo Rd falls under the jurisdiction of the City of Waterloo and therefore, the provided traffic data of Conestogo Rd should be verified and validated with the City of Waterloo. It should be noted that the AADT along Highway 85 west of Conestogo Rd should also be taken into account while preparing this noise study given the proximity of the development to the highway (< 500 m).

From: Bakalarczyk, Robert (MTO) <Robert.Bakalarczyk@ontario.ca>
Sent: Monday, August 17, 2020 9:57 AM
To: Amy Patenaude <Amy.Patenaude@rwdi.com>
Subject: RE: Noise assessment - 525-565 Conestogo Road, RWDI Project Number 2002470

Hi Amy

The latest volumes we have are from 2016 and the Average Annual Daily Traffic (AADT) at that time was 39,800 with 7.2% being trucks.

Please let me know if you need anything further.

Rob

GRT
GRAND RIVER TRANSIT

Saturday, June 27, 2020

301 **ION light rail**
Fairway Station

a

6001 - Conestoga Station

Morning (05:00 AM to 11:59 AM)

05 AM	25	40	55					
06 AM	10	25	40	55				
07 AM	10	25	40	55				
08 AM	10	25	40	55				
09 AM	10	25	40	55				
10 AM	10	25	40	55				
11 AM	10	25	40	55				

Afternoon (12:00 PM to 05:59 PM)

12 PM	10	25	40	55				
01 PM	10	25	40	55				
02 PM	10	25	40	55				
03 PM	10	25	40	55				
04 PM	10	25	40	55				
05 PM	10	25	40	55				

Evening (06:00 PM to 11:59 PM)

06 PM	10	25	40	55				
07 PM	10	25	40	55				
08 PM	10	25	40	55				
09 PM	10	25	40	55				
10 PM	10	25	40	55				
11 PM	10	25	40					

a Masks are strongly recommended when physical distancing is challenging. If you are able to, please wear a mask or face covering while riding the bus or train.

GRT
GRAND RIVER TRANSIT

Tuesday, June 23, 2020

301 ION light rail
Fairway Station

a

6001 - Conestoga Station

Morning (04:00 AM to 11:59 AM)

04 AM	58							
05 AM	13	28	43	55				
06 AM	10	25	40	55				
07 AM	10	25	40	55				
08 AM	10	25	40	55				
09 AM	10	25	40	55				
10 AM	10	25	40	55				
11 AM	10	25	40	55				

Afternoon (12:00 PM to 05:59 PM)

12 PM	10	25	40	55				
01 PM	10	25	40	55				
02 PM	10	25	40	55				
03 PM	10	25	40	55				
04 PM	10	25	40	55				
05 PM	10	25	40	55				

Evening (06:00 PM to 11:59 PM)

06 PM	10	25	40	55				
07 PM	10	25	40	55				
08 PM	10	25	40	55				
09 PM	10	25	40	55				
10 PM	10	25	40	55				
11 PM	10	25	40					

a Masks are strongly recommended when physical distancing is challenging. If you are able to, please wear a mask or face covering while riding the bus or train.

Rail (Future with Growth)

EMJI July 2020

V0.1

Rail Data Estimations for Modelling

Rail Name	Rail Type (Freight [F], Light Rapid Transit [LRT] or Bus [B])	Rail Type (Jointed Track [JT] or Continuous Welded Rail [CWR])	# Trains	Data From Year	Speed	Traffic Growth	Forecast to: 2030	Future # Trains
Conestoga Station #6001 (ION Light Rail)								
Daytime	LRT	J	67	2020	50	2.5%	10	71
Nighttime	LRT	J	12	2020	50	2.5%	10	13

ORNAMENT

Ontario Road Noise Analysis Method for ENvironment and Transportation

version 2.09

Job No. 2002470
Job Name 525-565 Conestogo Road

Test Calc

ROAD CHARACTERISTICS | **SOURCE-RECEIVER-BARRIER-TOPOGRAPHY CHARACTERISTICS**

ID	Description	Time Period	Number of Vehicles			Speed (km/h)	Two Way? (y/n)	Pavement Type	Road Viewable Angle		Source-Receiver Distance (m)	Ground Type (Hard/Soft)	Topography Type	Source Height (m)	Road Elevation (m asl)	Receptor Height (m)	**Total Segment L_{eq} (dBA)**
			Autos	Medium	Heavy				Θ_1	Θ_2							
Conestogo Road	Daytime	16	2661	124	95	50	y	1	-36	-11	192.0	Hard	A	1.3	3.0	45.0	40.60
Northfield Drive	Daytime	16	26842	476	672	60	y	1	-90	79	56.0	Hard	A	1.2	6.0	45.0	64.52
Highway 85 North	Daytime	16	20712	618	989	90	y	1	0	86	64.0	Hard	A	1.5	0.0	45.0	65.27
Highway 85 South	Daytime	16	20712	618	989	90	y	1	0	86	90.0	Hard	A	1.5	0.0	45.0	63.78
																	69
Conestogo Road	Nighttime	8	296	14	11	50	y	1	-36	-11	192.0	Hard	A	1.4	3.0	45.0	34.18
Northfield Drive	Nighttime	8	2982	53	75	60	y	1	-90	79	56.0	Hard	A	1.2	6.0	45.0	58.00
Highway 85 North	Nighttime	8	3655	109	175	90	y	1	0	86	64.0	Hard	A	1.5	0.0	45.0	60.75
Highway 85 South	Nighttime	8	3655	109	175	90	y	1	0	86	90.0	Hard	A	1.5	0.0	45.0	59.27
																	64

Receiver
Name: Test Receiver
ID: !0H!
X: 537231.44 m
Y: 4816321.06 m
Z: 45.00 m

Road, RLS-90, Name: "Northfield Drive", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
5686	537652.69	4816588.67	0.50	0	D	64.1	6.9	0.0	0.0	0.0	-45.3	0.0	4.8	0.0	20.9
5686	537652.69	4816588.67	0.50	0	N	57.6	6.9	0.0	0.0	0.0	-45.3	0.0	4.8	0.0	14.4
5686	537652.69	4816588.67	0.50	0	E	-8.3	6.9	0.0	0.0	0.0	-45.3	0.0	4.8	0.0	-51.5
5688	537631.87	4816578.15	0.50	0	D	64.1	16.2	0.0	0.0	0.0	-44.8	0.0	4.8	0.0	30.8
5688	537631.87	4816578.15	0.50	0	N	57.6	16.2	0.0	0.0	0.0	-44.8	0.0	4.8	0.0	24.2
5688	537631.87	4816578.15	0.50	0	E	-8.3	16.2	0.0	0.0	0.0	-44.8	0.0	4.8	0.0	-41.6
5690	537560.46	4816542.07	0.50	0	D	64.1	20.7	0.0	0.0	0.0	-42.8	0.0	5.2	0.0	36.8
5690	537560.46	4816542.07	0.50	0	N	57.6	20.7	0.0	0.0	0.0	-42.8	0.0	5.2	0.0	30.2
5690	537560.46	4816542.07	0.50	0	E	-8.3	20.7	0.0	0.0	0.0	-42.8	0.0	5.2	0.0	-35.6
5692	537498.52	4816510.77	0.50	0	D	64.1	13.1	0.0	0.0	0.0	-40.8	0.0	9.0	0.0	27.4
5692	537498.52	4816510.77	0.50	0	N	57.6	13.1	0.0	0.0	0.0	-40.8	0.0	9.0	0.0	20.8
5692	537498.52	4816510.77	0.50	0	E	-8.3	13.1	0.0	0.0	0.0	-40.8	0.0	9.0	0.0	-45.0
5693	537484.34	4816503.61	0.50	0	D	64.1	10.5	0.0	0.0	0.0	-40.3	0.0	9.7	0.0	24.6
5693	537484.34	4816503.61	0.50	0	N	57.6	10.5	0.0	0.0	0.0	-40.3	0.0	9.7	0.0	18.1
5693	537484.34	4816503.61	0.50	0	E	-8.3	10.5	0.0	0.0	0.0	-40.3	0.0	9.7	0.0	-47.8
5695	537452.20	4816487.37	0.50	0	D	64.1	17.8	0.0	0.0	0.0	-39.1	0.0	11.2	0.0	31.6
5695	537452.20	4816487.37	0.50	0	N	57.6	17.8	0.0	0.0	0.0	-39.1	0.0	11.2	0.0	25.1
5695	537452.20	4816487.37	0.50	0	E	-8.3	17.8	0.0	0.0	0.0	-39.1	0.0	11.2	0.0	-40.7
5697	537394.91	4816458.43	0.50	0	D	64.1	18.3	0.0	0.0	0.0	-36.7	-1.0	0.0	0.0	44.8
5697	537394.91	4816458.43	0.50	0	N	57.6	18.3	0.0	0.0	0.0	-36.7	-1.0	0.0	0.0	38.2
5697	537394.91	4816458.43	0.50	0	E	-8.3	18.3	0.0	0.0	0.0	-36.7	-1.0	0.0	0.0	-27.6
5699	537334.64	4816427.98	0.50	0	D	64.1	18.3	0.0	0.0	0.0	-33.4	0.0	0.0	0.0	49.0
5699	537334.64	4816427.98	0.50	0	N	57.6	18.3	0.0	0.0	0.0	-33.4	0.0	0.0	0.0	42.5
5699	537334.64	4816427.98	0.50	0	E	-8.3	18.3	0.0	0.0	0.0	-33.4	0.0	0.0	0.0	-23.3
5700	537289.43	4816405.14	0.50	0	D	64.1	15.3	0.0	0.0	0.0	-30.3	0.0	0.0	0.0	49.1
5700	537289.43	4816405.14	0.50	0	N	57.6	15.3	0.0	0.0	0.0	-30.3	0.0	0.0	0.0	42.6
5700	537289.43	4816405.14	0.50	0	E	-8.3	15.3	0.0	0.0	0.0	-30.3	0.0	0.0	0.0	-23.3
5701	537259.29	4816389.91	0.50	0	D	64.1	15.3	0.0	0.0	0.0	-28.0	0.0	0.0	0.0	51.4
5701	537259.29	4816389.91	0.50	0	N	57.6	15.3	0.0	0.0	0.0	-28.0	0.0	0.0	0.0	44.9
5701	537259.29	4816389.91	0.50	0	E	-8.3	15.3	0.0	0.0	0.0	-28.0	0.0	0.0	0.0	-20.9
5703	537229.15	4816374.68	0.50	0	D	64.1	15.3	0.0	0.0	0.0	-26.0	0.0	0.0	0.0	53.4
5703	537229.15	4816374.68	0.50	0	N	57.6	15.3	0.0	0.0	0.0	-26.0	0.0	0.0	0.0	46.8
5703	537229.15	4816374.68	0.50	0	E	-8.3	15.3	0.0	0.0	0.0	-26.0	0.0	0.0	0.0	-19.0
5704	537206.54	4816363.26	0.50	0	D	64.1	12.3	0.0	0.0	0.0	-25.5	0.0	0.0	0.0	50.8
5704	537206.54	4816363.26	0.50	0	N	57.6	12.3	0.0	0.0	0.0	-25.5	0.0	0.0	0.0	44.3
5704	537206.54	4816363.26	0.50	0	E	-8.3	12.3	0.0	0.0	0.0	-25.5	0.0	0.0	0.0	-21.5
5706	537191.47	4816355.65	0.50	0	D	64.1	12.3	0.0	0.0	0.0	-25.9	0.0	0.0	0.0	50.4
5706	537191.47	4816355.65	0.50	0	N	57.6	12.3	0.0	0.0	0.0	-25.9	0.0	0.0	0.0	43.9
5706	537191.47	4816355.65	0.50	0	E	-8.3	12.3	0.0	0.0	0.0	-25.9	0.0	0.0	0.0	-21.9
5707	537168.87	4816344.23	0.50	0	D	64.1	15.3	0.0	0.0	0.0	-27.3	0.0	0.0	0.0	52.1
5707	537168.87	4816344.23	0.50	0	N	57.6	15.3	0.0	0.0	0.0	-27.3	0.0	0.0	0.0	45.6
5707	537168.87	4816344.23	0.50	0	E	-8.3	15.3	0.0	0.0	0.0	-27.3	0.0	0.0	0.0	-20.3
5708	537138.73	4816329.00	0.50	0	D	64.1	15.3	0.0	0.0	0.0	-29.6	0.0	0.0	0.0	49.8
5708	537138.73	4816329.00	0.50	0	N	57.6	15.3	0.0	0.0	0.0	-29.6	0.0	0.0	0.0	43.3
5708	537138.73	4816329.00	0.50	0	E	-8.3	15.3	0.0	0.0	0.0	-29.6	0.0	0.0	0.0	-22.6
5709	537093.52	4816306.16	0.50	0	D	64.1	18.3	0.0	0.0	0.0	-32.8	0.0	0.0	0.0	49.6
5709	537093.52	4816306.16	0.50	0	N	57.6	18.3	0.0	0.0	0.0	-32.8	0.0	0.0	0.0	43.1
5709	537093.52	4816306.16	0.50	0	E	-8.3	18.3	0.0	0.0	0.0	-32.8	0.0	0.0	0.0	-22.8
5710	537033.24	4816275.71	0.50	0	D	64.1	18.3	0.0	0.0	0.0	-36.2	-0.8	0.0	0.0	45.4
5710	537033.24	4816275.71	0.50	0	N	57.6	18.3	0.0	0.0	0.0	-36.2	-0.8	0.0	0.0	38.9
5710	537033.24	4816275.71	0.50	0	E	-8.3	18.3	0.0	0.0	0.0	-36.2	-0.8	0.0	0.0	-26.9
5711	536972.96	4816245.25	0.50	0	D	64.1	18.3	0.0	0.0	0.0	-38.9	-1.8	0.0	0.0	41.7
5711	536972.96	4816245.25	0.50	0	N	57.6	18.3	0.0	0.0	0.0	-38.9	-1.8	0.0	0.0	35.2

Road, RLS-90, Name: "Northfield Drive", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
5711	536972.96	4816245.25	0.50	0	E	-8.3	18.3	0.0	0.0	0.0	-38.9	-1.8	0.0	0.0	-30.6
5712	536914.49	4816215.71	0.50	0	D	64.1	18.0	0.0	0.0	0.0	-41.0	-2.4	0.0	0.0	38.7
5712	536914.49	4816215.71	0.50	0	N	57.6	18.0	0.0	0.0	0.0	-41.0	-2.4	0.0	0.0	32.2
5712	536914.49	4816215.71	0.50	0	E	-8.3	18.0	0.0	0.0	0.0	-41.0	-2.4	0.0	0.0	-33.6
5713	537130.18	4816324.68	0.50	1	D	64.1	15.3	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	36.6
5713	537130.18	4816324.68	0.50	1	N	57.6	15.3	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	30.0
5713	537130.18	4816324.68	0.50	1	E	-8.3	15.3	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	-35.8
5714	537099.75	4816309.31	0.50	1	D	64.1	15.3	0.0	0.0	0.0	-40.2	-2.2	0.0	2.0	35.1
5714	537099.75	4816309.31	0.50	1	N	57.6	15.3	0.0	0.0	0.0	-40.2	-2.2	0.0	2.0	28.6
5714	537099.75	4816309.31	0.50	1	E	-8.3	15.3	0.0	0.0	0.0	-40.2	-2.2	0.0	2.0	-37.3
5715	537059.74	4816289.09	0.50	1	D	64.1	17.4	0.0	0.0	0.0	-41.5	-2.5	0.0	2.0	35.5
5715	537059.74	4816289.09	0.50	1	N	57.6	17.4	0.0	0.0	0.0	-41.5	-2.5	0.0	2.0	29.0
5715	537059.74	4816289.09	0.50	1	E	-8.3	17.4	0.0	0.0	0.0	-41.5	-2.5	0.0	2.0	-36.9
5716	537010.14	4816264.04	0.50	1	D	64.1	17.4	0.0	0.0	0.0	-43.1	-2.8	0.0	2.0	33.6
5716	537010.14	4816264.04	0.50	1	N	57.6	17.4	0.0	0.0	0.0	-43.1	-2.8	0.0	2.0	27.1
5716	537010.14	4816264.04	0.50	1	E	-8.3	17.4	0.0	0.0	0.0	-43.1	-2.8	0.0	2.0	-38.7
5717	536967.18	4816242.33	0.50	1	D	64.1	13.8	0.0	0.0	0.0	-46.6	0.0	4.9	2.0	24.4
5717	536967.18	4816242.33	0.50	1	N	57.6	13.8	0.0	0.0	0.0	-46.6	0.0	4.9	2.0	17.9
5717	536967.18	4816242.33	0.50	1	E	-8.3	13.8	0.0	0.0	0.0	-46.6	0.0	4.9	2.0	-48.0
5718	536921.34	4816219.17	0.50	1	D	64.1	19.0	0.0	0.0	0.0	-47.6	0.0	4.8	2.0	28.7
5718	536921.34	4816219.17	0.50	1	N	57.6	19.0	0.0	0.0	0.0	-47.6	0.0	4.8	2.0	22.1
5718	536921.34	4816219.17	0.50	1	E	-8.3	19.0	0.0	0.0	0.0	-47.6	0.0	4.8	2.0	-43.7
5722	537618.98	4816587.88	0.50	0	D	64.1	18.2	0.0	0.0	0.0	-44.7	0.0	4.8	0.0	32.8
5722	537618.98	4816587.88	0.50	0	N	57.6	18.2	0.0	0.0	0.0	-44.7	0.0	4.8	0.0	26.3
5722	537618.98	4816587.88	0.50	0	E	-8.3	18.2	0.0	0.0	0.0	-44.7	0.0	4.8	0.0	-39.5
5723	537577.73	4816567.04	0.50	0	D	64.1	14.3	0.0	0.0	0.0	-43.5	0.0	4.8	0.0	30.0
5723	537577.73	4816567.04	0.50	0	N	57.6	14.3	0.0	0.0	0.0	-43.5	0.0	4.8	0.0	23.5
5723	537577.73	4816567.04	0.50	0	E	-8.3	14.3	0.0	0.0	0.0	-43.5	0.0	4.8	0.0	-42.4
5724	537559.34	4816557.75	0.50	0	D	64.1	11.6	0.0	0.0	0.0	-43.0	0.0	4.9	0.0	27.8
5724	537559.34	4816557.75	0.50	0	N	57.6	11.6	0.0	0.0	0.0	-43.0	0.0	4.9	0.0	21.3
5724	537559.34	4816557.75	0.50	0	E	-8.3	11.6	0.0	0.0	0.0	-43.0	0.0	4.9	0.0	-44.5
5725	537517.67	4816536.69	0.50	0	D	64.1	19.0	0.0	0.0	0.0	-41.8	0.0	5.1	0.0	36.2
5725	537517.67	4816536.69	0.50	0	N	57.6	19.0	0.0	0.0	0.0	-41.8	0.0	5.1	0.0	29.7
5725	537517.67	4816536.69	0.50	0	E	-8.3	19.0	0.0	0.0	0.0	-41.8	0.0	5.1	0.0	-36.1
5726	537444.79	4816499.88	0.50	0	D	64.1	19.3	0.0	0.0	0.0	-39.2	-1.9	0.0	0.0	42.3
5726	537444.79	4816499.88	0.50	0	N	57.6	19.3	0.0	0.0	0.0	-39.2	-1.9	0.0	0.0	35.7
5726	537444.79	4816499.88	0.50	0	E	-8.3	19.3	0.0	0.0	0.0	-39.2	-1.9	0.0	0.0	-30.1
5727	537369.44	4816461.80	0.50	0	D	64.1	19.3	0.0	0.0	0.0	-35.9	-0.6	0.0	0.0	46.8
5727	537369.44	4816461.80	0.50	0	N	57.6	19.3	0.0	0.0	0.0	-35.9	-0.6	0.0	0.0	40.3
5727	537369.44	4816461.80	0.50	0	E	-8.3	19.3	0.0	0.0	0.0	-35.9	-0.6	0.0	0.0	-25.5
5728	537312.92	4816433.25	0.50	0	D	64.1	16.3	0.0	0.0	0.0	-32.8	0.0	0.0	0.0	47.6
5728	537312.92	4816433.25	0.50	0	N	57.6	16.3	0.0	0.0	0.0	-32.8	0.0	0.0	0.0	41.0
5728	537312.92	4816433.25	0.50	0	E	-8.3	16.3	0.0	0.0	0.0	-32.8	0.0	0.0	0.0	-24.8
5729	537275.24	4816414.21	0.50	0	D	64.1	16.3	0.0	0.0	0.0	-30.4	0.0	0.0	0.0	50.0
5729	537275.24	4816414.21	0.50	0	N	57.6	16.3	0.0	0.0	0.0	-30.4	0.0	0.0	0.0	43.5
5729	537275.24	4816414.21	0.50	0	E	-8.3	16.3	0.0	0.0	0.0	-30.4	0.0	0.0	0.0	-22.4
5730	537237.56	4816395.18	0.50	0	D	64.1	16.3	0.0	0.0	0.0	-28.0	0.0	0.0	0.0	52.4
5730	537237.56	4816395.18	0.50	0	N	57.6	16.3	0.0	0.0	0.0	-28.0	0.0	0.0	0.0	45.8
5730	537237.56	4816395.18	0.50	0	E	-8.3	16.3	0.0	0.0	0.0	-28.0	0.0	0.0	0.0	-20.0
5731	537209.30	4816380.90	0.50	0	D	64.1	13.2	0.0	0.0	0.0	-27.0	0.0	0.0	0.0	50.3
5731	537209.30	4816380.90	0.50	0	N	57.6	13.2	0.0	0.0	0.0	-27.0	0.0	0.0	0.0	43.8
5731	537209.30	4816380.90	0.50	0	E	-8.3	13.2	0.0	0.0	0.0	-27.0	0.0	0.0	0.0	-22.0
5732	537190.46	4816371.38	0.50	0	D	64.1	13.2	0.0	0.0	0.0	-27.1	0.0	0.0	0.0	50.2
5732	537190.46	4816371.38	0.50	0	N	57.6	13.2	0.0	0.0	0.0	-27.1	0.0	0.0	0.0	43.7
5732	537190.46	4816371.38	0.50	0	E	-8.3	13.2	0.0	0.0	0.0	-27.1	0.0	0.0	0.0	-22.1
5733	537162.20	4816357.11	0.50	0	D	64.1	16.3	0.0	0.0	0.0	-28.3	0.0	0.0	0.0	52.0
5733	537162.20	4816357.11	0.50	0	N	57.6	16.3	0.0	0.0	0.0	-28.3	0.0	0.0	0.0	45.5
5733	537162.20	4816357.11	0.50	0	E	-8.3	16.3	0.0	0.0	0.0	-28.3	0.0	0.0	0.0	-20.3
5734	537124.52	4816338.07	0.50	0	D	64.1	16.3	0.0	0.0	0.0	-30.8	0.0	0.0	0.0	49.6
5734	537124.52	4816338.07	0.50	0	N	57.6	16.3	0.0	0.0	0.0	-30.8	0.0	0.0	0.0	43.1
5734	537124.52	4816338.07	0.50	0	E	-8.3	16.3	0.0	0.0	0.0	-30.8	0.0	0.0	0.0	-22.7
5735	537068.00	4816309.52	0.50	0	D	64.1	19.3	0.0	0.0	0.0	-34.2	0.0	0.0	0.0	49.1
5735	537068.00	4816309.52	0.50	0	N	57.6	19.3	0.0	0.0	0.0	-34.2	0.0	0.0	0.0	42.6

Road, RLS-90, Name: "Northfield Drive", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
5735	537068.00	4816309.52	0.50	0	E	-8.3	19.3	0.0	0.0	0.0	-34.2	0.0	0.0	0.0	-23.2
5736	536992.65	4816271.44	0.50	0	D	64.1	19.3	0.0	0.0	0.0	-37.9	-1.5	0.0	0.0	44.0
5736	536992.65	4816271.44	0.50	0	N	57.6	19.3	0.0	0.0	0.0	-37.9	-1.5	0.0	0.0	37.4
5736	536992.65	4816271.44	0.50	0	E	-8.3	19.3	0.0	0.0	0.0	-37.9	-1.5	0.0	0.0	-28.4
5737	536917.29	4816233.37	0.50	0	D	64.1	19.3	0.0	0.0	0.0	-40.8	-2.3	0.0	0.0	40.2
5737	536917.29	4816233.37	0.50	0	N	57.6	19.3	0.0	0.0	0.0	-40.8	-2.3	0.0	0.0	33.7
5737	536917.29	4816233.37	0.50	0	E	-8.3	19.3	0.0	0.0	0.0	-40.8	-2.3	0.0	0.0	-32.1
5745	537031.11	4816290.88	0.50	1	D	64.1	19.5	0.0	0.0	0.0	-42.3	-2.7	0.0	2.0	36.6
5745	537031.11	4816290.88	0.50	1	N	57.6	19.5	0.0	0.0	0.0	-42.3	-2.7	0.0	2.0	30.1
5745	537031.11	4816290.88	0.50	1	E	-8.3	19.5	0.0	0.0	0.0	-42.3	-2.7	0.0	2.0	-35.7

Road, RLS-90, Name: "Conestogo Parkway North", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
5784	537151.10	4816346.25	0.50	0	D	67.0	15.1	0.0	0.0	0.0	-28.9	0.0	0.0	0.0	53.3
5784	537151.10	4816346.25	0.50	0	N	62.5	15.1	0.0	0.0	0.0	-28.9	0.0	0.0	0.0	48.8
5784	537151.10	4816346.25	0.50	0	E	-4.3	15.1	0.0	0.0	0.0	-28.9	0.0	0.0	0.0	-18.0
5785	537165.05	4816316.96	0.50	0	D	67.0	15.1	0.0	0.0	0.0	-27.3	0.0	0.0	0.0	54.9
5785	537165.05	4816316.96	0.50	0	N	62.5	15.1	0.0	0.0	0.0	-27.3	0.0	0.0	0.0	50.4
5785	537165.05	4816316.96	0.50	0	E	-4.3	15.1	0.0	0.0	0.0	-27.3	0.0	0.0	0.0	-16.4
5787	537174.58	4816296.96	0.50	0	D	67.0	10.7	0.0	0.0	0.0	-26.8	0.0	0.0	0.0	51.0
5787	537174.58	4816296.96	0.50	0	N	62.5	10.7	0.0	0.0	0.0	-26.8	0.0	0.0	0.0	46.4
5787	537174.58	4816296.96	0.50	0	E	-4.3	10.7	0.0	0.0	0.0	-26.8	0.0	0.0	0.0	-20.3
5789	537185.09	4816274.89	0.50	0	D	67.0	15.7	0.0	0.0	0.0	-27.2	0.0	40.4	0.0	15.2
5789	537185.09	4816274.89	0.50	0	N	62.5	15.7	0.0	0.0	0.0	-27.2	0.0	40.4	0.0	10.7
5789	537185.09	4816274.89	0.50	0	E	-4.3	15.7	0.0	0.0	0.0	-27.2	0.0	40.4	0.0	-56.1
5791	537201.00	4816241.49	0.50	0	D	67.0	15.7	0.0	0.0	0.0	-28.9	0.0	40.1	0.0	13.7
5791	537201.00	4816241.49	0.50	0	N	62.5	15.7	0.0	0.0	0.0	-28.9	0.0	40.1	0.0	9.1
5791	537201.00	4816241.49	0.50	0	E	-4.3	15.7	0.0	0.0	0.0	-28.9	0.0	40.1	0.0	-57.6
5793	537218.96	4816203.80	0.50	0	D	67.0	16.7	0.0	0.0	0.0	-31.4	0.0	39.7	0.0	12.6
5793	537218.96	4816203.80	0.50	0	N	62.5	16.7	0.0	0.0	0.0	-31.4	0.0	39.7	0.0	8.0
5793	537218.96	4816203.80	0.50	0	E	-4.3	16.7	0.0	0.0	0.0	-31.4	0.0	39.7	0.0	-58.7
5795	537172.90	4816300.49	0.50	1	D	67.0	5.0	0.0	0.0	0.0	-32.1	0.0	0.0	2.0	38.0
5795	537172.90	4816300.49	0.50	1	N	62.5	5.0	0.0	0.0	0.0	-32.1	0.0	0.0	2.0	33.4
5795	537172.90	4816300.49	0.50	1	E	-4.3	5.0	0.0	0.0	0.0	-32.1	0.0	0.0	2.0	-33.3
5797	537174.12	4816297.92	0.50	1	D	67.0	4.0	0.0	0.0	0.0	-32.1	0.0	0.0	2.0	36.9
5797	537174.12	4816297.92	0.50	1	N	62.5	4.0	0.0	0.0	0.0	-32.1	0.0	0.0	2.0	32.4
5797	537174.12	4816297.92	0.50	1	E	-4.3	4.0	0.0	0.0	0.0	-32.1	0.0	0.0	2.0	-34.4
5799	537175.05	4816295.97	0.50	1	D	67.0	2.6	0.0	0.0	0.0	-32.1	0.0	0.0	2.0	35.5
5799	537175.05	4816295.97	0.50	1	N	62.5	2.6	0.0	0.0	0.0	-32.1	0.0	0.0	2.0	31.0
5799	537175.05	4816295.97	0.50	1	E	-4.3	2.6	0.0	0.0	0.0	-32.1	0.0	0.0	2.0	-35.8
5805	537158.32	4816331.10	0.50	1	D	67.0	9.9	0.0	0.0	0.0	-37.9	-1.5	0.0	2.0	35.5
5805	537158.32	4816331.10	0.50	1	N	62.5	9.9	0.0	0.0	0.0	-37.9	-1.5	0.0	2.0	31.0
5805	537158.32	4816331.10	0.50	1	E	-4.3	9.9	0.0	0.0	0.0	-37.9	-1.5	0.0	2.0	-35.8
5807	537163.06	4816321.14	0.50	1	D	67.0	10.9	0.0	0.0	0.0	-37.9	-1.4	0.0	2.0	36.6
5807	537163.06	4816321.14	0.50	1	N	62.5	10.9	0.0	0.0	0.0	-37.9	-1.4	0.0	2.0	32.1
5807	537163.06	4816321.14	0.50	1	E	-4.3	10.9	0.0	0.0	0.0	-37.9	-1.4	0.0	2.0	-34.7
5809	537166.91	4816313.07	0.50	1	D	67.0	7.4	0.0	0.0	0.0	-37.9	-1.4	0.0	2.0	33.2
5809	537166.91	4816313.07	0.50	1	N	62.5	7.4	0.0	0.0	0.0	-37.9	-1.4	0.0	2.0	28.6
5809	537166.91	4816313.07	0.50	1	E	-4.3	7.4	0.0	0.0	0.0	-37.9	-1.4	0.0	2.0	-38.1
5811	537168.43	4816309.86	0.50	1	D	67.0	2.0	0.0	0.0	0.0	-37.8	-1.4	0.0	2.0	27.7
5811	537168.43	4816309.86	0.50	1	N	62.5	2.0	0.0	0.0	0.0	-37.8	-1.4	0.0	2.0	23.2
5811	537168.43	4816309.86	0.50	1	E	-4.3	2.0	0.0	0.0	0.0	-37.8	-1.4	0.0	2.0	-43.6
5813	537171.54	4816303.33	0.50	1	D	67.0	11.1	0.0	0.0	0.0	-37.8	0.0	4.8	2.0	33.5
5813	537171.54	4816303.33	0.50	1	N	62.5	11.1	0.0	0.0	0.0	-37.8	0.0	4.8	2.0	29.0
5813	537171.54	4816303.33	0.50	1	E	-4.3	11.1	0.0	0.0	0.0	-37.8	0.0	4.8	2.0	-37.8
5819	537147.65	4816344.76	0.50	0	D	67.0	15.1	0.0	0.0	0.0	-29.1	0.0	0.0	0.0	53.0
5819	537147.65	4816344.76	0.50	0	N	62.5	15.1	0.0	0.0	0.0	-29.1	0.0	0.0	0.0	48.5
5819	537147.65	4816344.76	0.50	0	E	-4.3	15.1	0.0	0.0	0.0	-29.1	0.0	0.0	0.0	-18.3
5821	537161.49	4816315.71	0.50	0	D	67.0	15.1	0.0	0.0	0.0	-27.6	0.0	0.0	0.0	54.5
5821	537161.49	4816315.71	0.50	0	N	62.5	15.1	0.0	0.0	0.0	-27.6	0.0	0.0	0.0	50.0
5821	537161.49	4816315.71	0.50	0	E	-4.3	15.1	0.0	0.0	0.0	-27.6	0.0	0.0	0.0	-16.8
5823	537171.12	4816295.49	0.50	0	D	67.0	11.0	0.0	0.0	0.0	-27.2	0.0	0.0	0.0	50.9

Road, RLS-90, Name: "Conestogo Parkway North", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
5823	537171.12	4816295.49	0.50	0	N	62.5	11.0	0.0	0.0	0.0	-27.2	0.0	0.0	0.0	46.3
5823	537171.12	4816295.49	0.50	0	E	-4.3	11.0	0.0	0.0	0.0	-27.2	0.0	0.0	0.0	-20.4
5825	537182.27	4816272.09	0.50	0	D	67.0	15.9	0.0	0.0	0.0	-27.5	0.0	40.3	0.0	15.1
5825	537182.27	4816272.09	0.50	0	N	62.5	15.9	0.0	0.0	0.0	-27.5	0.0	40.3	0.0	10.6
5825	537182.27	4816272.09	0.50	0	E	-4.3	15.9	0.0	0.0	0.0	-27.5	0.0	40.3	0.0	-56.2
5827	537199.15	4816236.66	0.50	0	D	67.0	15.9	0.0	0.0	0.0	-29.4	0.0	40.0	0.0	13.6
5827	537199.15	4816236.66	0.50	0	N	62.5	15.9	0.0	0.0	0.0	-29.4	0.0	40.0	0.0	9.0
5827	537199.15	4816236.66	0.50	0	E	-4.3	15.9	0.0	0.0	0.0	-29.4	0.0	40.0	0.0	-57.7
5829	537216.58	4816200.07	0.50	0	D	67.0	16.2	0.0	0.0	0.0	-31.7	0.0	39.7	0.0	11.9
5829	537216.58	4816200.07	0.50	0	N	62.5	16.2	0.0	0.0	0.0	-31.7	0.0	39.7	0.0	7.3
5829	537216.58	4816200.07	0.50	0	E	-4.3	16.2	0.0	0.0	0.0	-31.7	0.0	39.7	0.0	-59.4
5835	537169.45	4816299.00	0.50	1	D	67.0	5.2	0.0	0.0	0.0	-32.4	0.0	0.0	2.0	37.8
5835	537169.45	4816299.00	0.50	1	N	62.5	5.2	0.0	0.0	0.0	-32.4	0.0	0.0	2.0	33.3
5835	537169.45	4816299.00	0.50	1	E	-4.3	5.2	0.0	0.0	0.0	-32.4	0.0	0.0	2.0	-33.5
5844	537170.71	4816296.36	0.50	1	D	67.0	4.1	0.0	0.0	0.0	-32.3	0.0	0.0	2.0	36.8
5844	537170.71	4816296.36	0.50	1	N	62.5	4.1	0.0	0.0	0.0	-32.3	0.0	0.0	2.0	32.2
5844	537170.71	4816296.36	0.50	1	E	-4.3	4.1	0.0	0.0	0.0	-32.3	0.0	0.0	2.0	-34.5
5845	537171.66	4816294.36	0.50	1	D	67.0	2.7	0.0	0.0	0.0	-32.3	0.0	0.0	2.0	35.4
5845	537171.66	4816294.36	0.50	1	N	62.5	2.7	0.0	0.0	0.0	-32.3	0.0	0.0	2.0	30.9
5845	537171.66	4816294.36	0.50	1	E	-4.3	2.7	0.0	0.0	0.0	-32.3	0.0	0.0	2.0	-35.9
5848	537154.69	4816329.98	0.50	1	D	67.0	9.9	0.0	0.0	0.0	-38.1	-1.5	0.0	2.0	35.4
5848	537154.69	4816329.98	0.50	1	N	62.5	9.9	0.0	0.0	0.0	-38.1	-1.5	0.0	2.0	30.8
5848	537154.69	4816329.98	0.50	1	E	-4.3	9.9	0.0	0.0	0.0	-38.1	-1.5	0.0	2.0	-35.9
5849	537159.76	4816319.35	0.50	1	D	67.0	11.4	0.0	0.0	0.0	-38.0	-1.5	0.0	2.0	36.9
5849	537159.76	4816319.35	0.50	1	N	62.5	11.4	0.0	0.0	0.0	-38.0	-1.5	0.0	2.0	32.3
5849	537159.76	4816319.35	0.50	1	E	-4.3	11.4	0.0	0.0	0.0	-38.0	-1.5	0.0	2.0	-34.4
5851	537163.66	4816311.16	0.50	1	D	67.0	6.5	0.0	0.0	0.0	-38.0	-1.5	0.0	2.0	32.1
5851	537163.66	4816311.16	0.50	1	N	62.5	6.5	0.0	0.0	0.0	-38.0	-1.5	0.0	2.0	27.5
5851	537163.66	4816311.16	0.50	1	E	-4.3	6.5	0.0	0.0	0.0	-38.0	-1.5	0.0	2.0	-39.2
5853	537164.97	4816308.41	0.50	1	D	67.0	2.0	0.0	0.0	0.0	-38.0	-1.5	0.0	2.0	27.6
5853	537164.97	4816308.41	0.50	1	N	62.5	2.0	0.0	0.0	0.0	-38.0	-1.5	0.0	2.0	23.1
5853	537164.97	4816308.41	0.50	1	E	-4.3	2.0	0.0	0.0	0.0	-38.0	-1.5	0.0	2.0	-43.7
5856	537168.13	4816301.78	0.50	1	D	67.0	11.2	0.0	0.0	0.0	-38.0	0.0	4.8	2.0	33.4
5856	537168.13	4816301.78	0.50	1	N	62.5	11.2	0.0	0.0	0.0	-38.0	0.0	4.8	2.0	28.9
5856	537168.13	4816301.78	0.50	1	E	-4.3	11.2	0.0	0.0	0.0	-38.0	0.0	4.8	2.0	-37.9
5866	537063.12	4816535.39	0.50	0	D	67.0	21.1	0.0	0.0	0.0	-39.0	-1.8	0.0	0.0	47.3
5866	537063.12	4816535.39	0.50	0	N	62.5	21.1	0.0	0.0	0.0	-39.0	-1.8	0.0	0.0	42.8
5866	537063.12	4816535.39	0.50	0	E	-4.3	21.1	0.0	0.0	0.0	-39.0	-1.8	0.0	0.0	-24.0
5869	537103.62	4816448.13	0.50	0	D	67.0	18.1	0.0	0.0	0.0	-35.1	-0.2	0.0	0.0	49.8
5869	537103.62	4816448.13	0.50	0	N	62.5	18.1	0.0	0.0	0.0	-35.1	-0.2	0.0	0.0	45.2
5869	537103.62	4816448.13	0.50	0	E	-4.3	18.1	0.0	0.0	0.0	-35.1	-0.2	0.0	0.0	-21.5
5872	537130.63	4816389.96	0.50	0	D	67.0	18.1	0.0	0.0	0.0	-31.7	0.0	0.0	0.0	53.4
5872	537130.63	4816389.96	0.50	0	N	62.5	18.1	0.0	0.0	0.0	-31.7	0.0	0.0	0.0	48.9
5872	537130.63	4816389.96	0.50	0	E	-4.3	18.1	0.0	0.0	0.0	-31.7	0.0	0.0	0.0	-17.9
5913	537059.72	4816533.81	0.50	0	D	67.0	21.1	0.0	0.0	0.0	-39.0	-1.8	0.0	0.0	47.2
5913	537059.72	4816533.81	0.50	0	N	62.5	21.1	0.0	0.0	0.0	-39.0	-1.8	0.0	0.0	42.7
5913	537059.72	4816533.81	0.50	0	E	-4.3	21.1	0.0	0.0	0.0	-39.0	-1.8	0.0	0.0	-24.0
5915	537100.22	4816446.55	0.50	0	D	67.0	18.1	0.0	0.0	0.0	-35.2	-0.3	0.0	0.0	49.7
5915	537100.22	4816446.55	0.50	0	N	62.5	18.1	0.0	0.0	0.0	-35.2	-0.3	0.0	0.0	45.1
5915	537100.22	4816446.55	0.50	0	E	-4.3	18.1	0.0	0.0	0.0	-35.2	-0.3	0.0	0.0	-21.6
5917	537127.23	4816388.38	0.50	0	D	67.0	18.1	0.0	0.0	0.0	-31.9	0.0	0.0	0.0	53.2
5917	537127.23	4816388.38	0.50	0	N	62.5	18.1	0.0	0.0	0.0	-31.9	0.0	0.0	0.0	48.7
5917	537127.23	4816388.38	0.50	0	E	-4.3	18.1	0.0	0.0	0.0	-31.9	0.0	0.0	0.0	-18.1
6047	537236.24	4816170.70	0.50	0	D	67.0	14.6	0.0	0.0	0.0	-33.5	0.0	39.4	0.0	8.7
6047	537236.24	4816170.70	0.50	0	N	62.5	14.6	0.0	0.0	0.0	-33.5	0.0	39.4	0.0	4.2
6047	537236.24	4816170.70	0.50	0	E	-4.3	14.6	0.0	0.0	0.0	-33.5	0.0	39.4	0.0	-62.6
6049	537252.62	4816143.40	0.50	0	D	67.0	15.4	0.0	0.0	0.0	-35.0	0.0	39.2	0.0	8.3
6049	537252.62	4816143.40	0.50	0	N	62.5	15.4	0.0	0.0	0.0	-35.0	0.0	39.2	0.0	3.8
6049	537252.62	4816143.40	0.50	0	E	-4.3	15.4	0.0	0.0	0.0	-35.0	0.0	39.2	0.0	-63.0
6053	537234.94	4816165.57	0.50	0	D	67.0	15.6	0.0	0.0	0.0	-33.8	0.0	39.4	0.0	9.5
6053	537234.94	4816165.57	0.50	0	N	62.5	15.6	0.0	0.0	0.0	-33.8	0.0	39.4	0.0	4.9
6053	537234.94	4816165.57	0.50	0	E	-4.3	15.6	0.0	0.0	0.0	-33.8	0.0	39.4	0.0	-61.8
6054	537251.32	4816138.27	0.50	0	D	67.0	14.4	0.0	0.0	0.0	-35.3	0.0	39.1	0.0	7.0

Road, RLS-90, Name: "Conestogo Parkway North", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
6054	537251.32	4816138.27	0.50	0	N	62.5	14.4	0.0	0.0	0.0	-35.3	0.0	39.1	0.0	2.5
6054	537251.32	4816138.27	0.50	0	E	-4.3	14.4	0.0	0.0	0.0	-35.3	0.0	39.1	0.0	-64.3
6547	537264.87	4816123.65	0.50	0	D	67.0	10.7	0.0	0.0	0.0	-36.1	0.0	39.0	0.0	2.7
6547	537264.87	4816123.65	0.50	0	N	62.5	10.7	0.0	0.0	0.0	-36.1	0.0	39.0	0.0	-1.9
6547	537264.87	4816123.65	0.50	0	E	-4.3	10.7	0.0	0.0	0.0	-36.1	0.0	39.0	0.0	-68.6
6550	537278.13	4816104.31	0.50	0	D	67.0	15.5	0.0	0.0	0.0	-37.0	0.0	38.8	0.0	6.7
6550	537278.13	4816104.31	0.50	0	N	62.5	15.5	0.0	0.0	0.0	-37.0	0.0	38.8	0.0	2.1
6550	537278.13	4816104.31	0.50	0	E	-4.3	15.5	0.0	0.0	0.0	-37.0	0.0	38.8	0.0	-64.6
6553	537292.68	4816083.09	0.50	0	D	67.0	12.1	0.0	0.0	0.0	-38.0	0.0	38.7	0.0	2.5
6553	537292.68	4816083.09	0.50	0	N	62.5	12.1	0.0	0.0	0.0	-38.0	0.0	38.7	0.0	-2.0
6553	537292.68	4816083.09	0.50	0	E	-4.3	12.1	0.0	0.0	0.0	-38.0	0.0	38.7	0.0	-68.8
6557	537264.15	4816118.08	0.50	0	D	67.0	13.0	0.0	0.0	0.0	-36.3	0.0	38.9	0.0	4.8
6557	537264.15	4816118.08	0.50	0	N	62.5	13.0	0.0	0.0	0.0	-36.3	0.0	38.9	0.0	0.3
6557	537264.15	4816118.08	0.50	0	E	-4.3	13.0	0.0	0.0	0.0	-36.3	0.0	38.9	0.0	-66.5
6559	537280.21	4816094.64	0.50	0	D	67.0	15.7	0.0	0.0	0.0	-37.4	0.0	38.7	0.0	6.5
6559	537280.21	4816094.64	0.50	0	N	62.5	15.7	0.0	0.0	0.0	-37.4	0.0	38.7	0.0	2.0
6559	537280.21	4816094.64	0.50	0	E	-4.3	15.7	0.0	0.0	0.0	-37.4	0.0	38.7	0.0	-64.8
6560	537292.40	4816076.87	0.50	0	D	67.0	8.0	0.0	0.0	0.0	-38.2	0.0	38.6	0.0	-1.8
6560	537292.40	4816076.87	0.50	0	N	62.5	8.0	0.0	0.0	0.0	-38.2	0.0	38.6	0.0	-6.3
6560	537292.40	4816076.87	0.50	0	E	-4.3	8.0	0.0	0.0	0.0	-38.2	0.0	38.6	0.0	-73.1
6592	537301.55	4816071.06	0.50	0	D	67.0	11.4	0.0	0.0	0.0	-38.5	0.0	38.6	0.0	1.4
6592	537301.55	4816071.06	0.50	0	N	62.5	11.4	0.0	0.0	0.0	-38.5	0.0	38.6	0.0	-3.2
6592	537301.55	4816071.06	0.50	0	E	-4.3	11.4	0.0	0.0	0.0	-38.5	0.0	38.6	0.0	-69.9
6595	537309.38	4816061.30	0.50	0	D	67.0	10.4	0.0	0.0	0.0	-39.0	0.0	38.5	0.0	0.0
6595	537309.38	4816061.30	0.50	0	N	62.5	10.4	0.0	0.0	0.0	-39.0	0.0	38.5	0.0	-4.5
6595	537309.38	4816061.30	0.50	0	E	-4.3	10.4	0.0	0.0	0.0	-39.0	0.0	38.5	0.0	-71.3
6597	537314.78	4816054.56	0.50	0	D	67.0	7.9	0.0	0.0	0.0	-39.2	0.0	38.5	0.0	-2.8
6597	537314.78	4816054.56	0.50	0	N	62.5	7.9	0.0	0.0	0.0	-39.2	0.0	38.5	0.0	-7.3
6597	537314.78	4816054.56	0.50	0	E	-4.3	7.9	0.0	0.0	0.0	-39.2	0.0	38.5	0.0	-74.1
6599	537327.32	4816038.91	0.50	0	D	67.0	15.3	0.0	0.0	0.0	-39.9	0.0	38.4	0.0	4.1
6599	537327.32	4816038.91	0.50	0	N	62.5	15.3	0.0	0.0	0.0	-39.9	0.0	38.4	0.0	-0.5
6599	537327.32	4816038.91	0.50	0	E	-4.3	15.3	0.0	0.0	0.0	-39.9	0.0	38.4	0.0	-67.2
6605	537301.46	4816065.18	0.50	0	D	67.0	13.6	0.0	0.0	0.0	-38.7	0.0	38.5	0.0	3.4
6605	537301.46	4816065.18	0.50	0	N	62.5	13.6	0.0	0.0	0.0	-38.7	0.0	38.5	0.0	-1.2
6605	537301.46	4816065.18	0.50	0	E	-4.3	13.6	0.0	0.0	0.0	-38.7	0.0	38.5	0.0	-67.9
6608	537312.25	4816051.72	0.50	0	D	67.0	10.6	0.0	0.0	0.0	-39.3	0.0	38.5	0.0	-0.1
6608	537312.25	4816051.72	0.50	0	N	62.5	10.6	0.0	0.0	0.0	-39.3	0.0	38.5	0.0	-4.7
6608	537312.25	4816051.72	0.50	0	E	-4.3	10.6	0.0	0.0	0.0	-39.3	0.0	38.5	0.0	-71.4
6612	537317.85	4816044.73	0.50	0	D	67.0	8.1	0.0	0.0	0.0	-39.6	0.0	38.4	0.0	-2.9
6612	537317.85	4816044.73	0.50	0	N	62.5	8.1	0.0	0.0	0.0	-39.6	0.0	38.4	0.0	-7.4
6612	537317.85	4816044.73	0.50	0	E	-4.3	8.1	0.0	0.0	0.0	-39.6	0.0	38.4	0.0	-74.2
6615	537327.43	4816032.78	0.50	0	D	67.0	13.8	0.0	0.0	0.0	-40.1	0.0	38.4	0.0	2.4
6615	537327.43	4816032.78	0.50	0	N	62.5	13.8	0.0	0.0	0.0	-40.1	0.0	38.4	0.0	-2.1
6615	537327.43	4816032.78	0.50	0	E	-4.3	13.8	0.0	0.0	0.0	-40.1	0.0	38.4	0.0	-68.9
6629	537344.46	4816018.65	0.50	0	D	67.0	12.9	0.0	0.0	0.0	-40.7	0.0	38.3	0.0	1.0
6629	537344.46	4816018.65	0.50	0	N	62.5	12.9	0.0	0.0	0.0	-40.7	0.0	38.3	0.0	-3.6
6629	537344.46	4816018.65	0.50	0	E	-4.3	12.9	0.0	0.0	0.0	-40.7	0.0	38.3	0.0	-70.3
6630	537361.32	4816000.48	0.50	0	D	67.0	14.8	0.0	0.0	0.0	-41.4	0.0	38.2	0.0	2.3
6630	537361.32	4816000.48	0.50	0	N	62.5	14.8	0.0	0.0	0.0	-41.4	0.0	38.2	0.0	-2.3
6630	537361.32	4816000.48	0.50	0	E	-4.3	14.8	0.0	0.0	0.0	-41.4	0.0	38.2	0.0	-69.0
6632	537376.33	4815984.30	0.50	0	D	67.0	11.5	0.0	0.0	0.0	-42.0	0.0	38.1	0.0	-1.6
6632	537376.33	4815984.30	0.50	0	N	62.5	11.5	0.0	0.0	0.0	-42.0	0.0	38.1	0.0	-6.1
6632	537376.33	4815984.30	0.50	0	E	-4.3	11.5	0.0	0.0	0.0	-42.0	0.0	38.1	0.0	-72.9
6635	537344.91	4816012.65	0.50	0	D	67.0	14.6	0.0	0.0	0.0	-40.9	0.0	38.2	0.0	2.5
6635	537344.91	4816012.65	0.50	0	N	62.5	14.6	0.0	0.0	0.0	-40.9	0.0	38.2	0.0	-2.0
6635	537344.91	4816012.65	0.50	0	E	-4.3	14.6	0.0	0.0	0.0	-40.9	0.0	38.2	0.0	-68.8
6637	537361.40	4815994.88	0.50	0	D	67.0	12.9	0.0	0.0	0.0	-41.5	0.0	38.2	0.0	0.3
6637	537361.40	4815994.88	0.50	0	N	62.5	12.9	0.0	0.0	0.0	-41.5	0.0	38.2	0.0	-4.3
6637	537361.40	4815994.88	0.50	0	E	-4.3	12.9	0.0	0.0	0.0	-41.5	0.0	38.2	0.0	-71.0
6639	537373.21	4815982.15	0.50	0	D	67.0	11.8	0.0	0.0	0.0	-42.0	0.0	38.1	0.0	-1.3
6639	537373.21	4815982.15	0.50	0	N	62.5	11.8	0.0	0.0	0.0	-42.0	0.0	38.1	0.0	-5.8
6639	537373.21	4815982.15	0.50	0	E	-4.3	11.8	0.0	0.0	0.0	-42.0	0.0	38.1	0.0	-72.6
6656	537384.47	4815976.28	0.50	0	D	67.0	9.7	0.0	0.0	0.0	-42.3	0.0	38.1	0.0	-3.6

Road, RLS-90, Name: "Conestogo Parkway North", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
6656	537384.47	4815976.28	0.50	0	N	62.5	9.7	0.0	0.0	0.0	-42.3	0.0	38.1	0.0	-8.2
6656	537384.47	4815976.28	0.50	0	E	-4.3	9.7	0.0	0.0	0.0	-42.3	0.0	38.1	0.0	-74.9
6658	537399.89	4815962.99	0.50	0	D	67.0	15.0	0.0	0.0	0.0	-42.8	0.0	38.0	0.0	1.2
6658	537399.89	4815962.99	0.50	0	N	62.5	15.0	0.0	0.0	0.0	-42.8	0.0	38.0	0.0	-3.3
6658	537399.89	4815962.99	0.50	0	E	-4.3	15.0	0.0	0.0	0.0	-42.8	0.0	38.0	0.0	-70.1
6659	537421.78	4815944.13	0.50	0	D	67.0	14.2	0.0	0.0	0.0	-43.5	0.0	37.9	0.0	-0.2
6659	537421.78	4815944.13	0.50	0	N	62.5	14.2	0.0	0.0	0.0	-43.5	0.0	37.9	0.0	-4.7
6659	537421.78	4815944.13	0.50	0	E	-4.3	14.2	0.0	0.0	0.0	-43.5	0.0	37.9	0.0	-71.4
6661	537433.65	4815933.91	0.50	0	D	67.0	7.0	0.0	0.0	0.0	-43.8	0.0	37.9	0.0	-7.7
6661	537433.65	4815933.91	0.50	0	N	62.5	7.0	0.0	0.0	0.0	-43.8	0.0	37.9	0.0	-12.2
6661	537433.65	4815933.91	0.50	0	E	-4.3	7.0	0.0	0.0	0.0	-43.8	0.0	37.9	0.0	-79.0
6666	537385.06	4815970.82	0.50	0	D	67.0	12.4	0.0	0.0	0.0	-42.4	0.0	38.0	0.0	-1.1
6666	537385.06	4815970.82	0.50	0	N	62.5	12.4	0.0	0.0	0.0	-42.4	0.0	38.0	0.0	-5.6
6666	537385.06	4815970.82	0.50	0	E	-4.3	12.4	0.0	0.0	0.0	-42.4	0.0	38.0	0.0	-72.4
6669	537403.81	4815954.66	0.50	0	D	67.0	15.1	0.0	0.0	0.0	-43.0	0.0	38.0	0.0	1.1
6669	537403.81	4815954.66	0.50	0	N	62.5	15.1	0.0	0.0	0.0	-43.0	0.0	38.0	0.0	-3.4
6669	537403.81	4815954.66	0.50	0	E	-4.3	15.1	0.0	0.0	0.0	-43.0	0.0	38.0	0.0	-70.2
6671	537424.55	4815936.79	0.50	0	D	67.0	13.5	0.0	0.0	0.0	-43.7	0.0	37.9	0.0	-1.0
6671	537424.55	4815936.79	0.50	0	N	62.5	13.5	0.0	0.0	0.0	-43.7	0.0	37.9	0.0	-5.5
6671	537424.55	4815936.79	0.50	0	E	-4.3	13.5	0.0	0.0	0.0	-43.7	0.0	37.9	0.0	-72.3
6746	537498.23	4815886.39	0.50	0	D	67.0	7.6	0.0	0.0	0.0	-45.5	0.0	37.6	0.0	-8.6
6746	537498.23	4815886.39	0.50	0	N	62.5	7.6	0.0	0.0	0.0	-45.5	0.0	37.6	0.0	-13.1
6746	537498.23	4815886.39	0.50	0	E	-4.3	7.6	0.0	0.0	0.0	-45.5	0.0	37.6	0.0	-79.9
6747	537506.69	4815881.06	0.50	0	D	67.0	11.5	0.0	0.0	0.0	-45.7	0.0	37.6	0.0	-4.8
6747	537506.69	4815881.06	0.50	0	N	62.5	11.5	0.0	0.0	0.0	-45.7	0.0	37.6	0.0	-9.3
6747	537506.69	4815881.06	0.50	0	E	-4.3	11.5	0.0	0.0	0.0	-45.7	0.0	37.6	0.0	-76.1
6749	537537.34	4815861.76	0.50	0	D	67.0	17.6	0.0	0.0	0.0	-46.4	0.0	37.5	0.0	0.7
6749	537537.34	4815861.76	0.50	0	N	62.5	17.6	0.0	0.0	0.0	-46.4	0.0	37.5	0.0	-3.8
6749	537537.34	4815861.76	0.50	0	E	-4.3	17.6	0.0	0.0	0.0	-46.4	0.0	37.5	0.0	-70.6
6751	537574.24	4815838.53	0.50	0	D	67.0	14.6	0.0	0.0	0.0	-47.2	0.0	37.4	0.0	-3.0
6751	537574.24	4815838.53	0.50	0	N	62.5	14.6	0.0	0.0	0.0	-47.2	0.0	37.4	0.0	-7.5
6751	537574.24	4815838.53	0.50	0	E	-4.3	14.6	0.0	0.0	0.0	-47.2	0.0	37.4	0.0	-74.3
6762	537499.47	4815881.18	0.50	0	D	67.0	11.3	0.0	0.0	0.0	-45.7	0.0	37.6	0.0	-5.0
6762	537499.47	4815881.18	0.50	0	N	62.5	11.3	0.0	0.0	0.0	-45.7	0.0	37.6	0.0	-9.5
6762	537499.47	4815881.18	0.50	0	E	-4.3	11.3	0.0	0.0	0.0	-45.7	0.0	37.6	0.0	-76.3
6766	537511.26	4815873.75	0.50	0	D	67.0	11.6	0.0	0.0	0.0	-45.9	0.0	37.6	0.0	-4.9
6766	537511.26	4815873.75	0.50	0	N	62.5	11.6	0.0	0.0	0.0	-45.9	0.0	37.6	0.0	-9.4
6766	537511.26	4815873.75	0.50	0	E	-4.3	11.6	0.0	0.0	0.0	-45.9	0.0	37.6	0.0	-76.2
6769	537542.42	4815854.13	0.50	0	D	67.0	17.7	0.0	0.0	0.0	-46.6	0.0	37.5	0.0	0.6
6769	537542.42	4815854.13	0.50	0	N	62.5	17.7	0.0	0.0	0.0	-46.6	0.0	37.5	0.0	-3.9
6769	537542.42	4815854.13	0.50	0	E	-4.3	17.7	0.0	0.0	0.0	-46.6	0.0	37.5	0.0	-70.7
6772	537575.98	4815833.00	0.50	0	D	67.0	13.1	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-4.7
6772	537575.98	4815833.00	0.50	0	N	62.5	13.1	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-9.2
6772	537575.98	4815833.00	0.50	0	E	-4.3	13.1	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-76.0
6788	537438.51	4815930.09	0.50	0	D	67.0	8.8	0.0	0.0	0.0	-44.0	0.0	37.8	0.0	-6.0
6788	537438.51	4815930.09	0.50	0	N	62.5	8.8	0.0	0.0	0.0	-44.0	0.0	37.8	0.0	-10.5
6788	537438.51	4815930.09	0.50	0	E	-4.3	8.8	0.0	0.0	0.0	-44.0	0.0	37.8	0.0	-77.3
6800	537454.95	4815917.99	0.50	0	D	67.0	15.2	0.0	0.0	0.0	-44.4	0.0	37.8	0.0	0.0
6800	537454.95	4815917.99	0.50	0	N	62.5	15.2	0.0	0.0	0.0	-44.4	0.0	37.8	0.0	-4.5
6800	537454.95	4815917.99	0.50	0	E	-4.3	15.2	0.0	0.0	0.0	-44.4	0.0	37.8	0.0	-71.3
6801	537473.11	4815904.63	0.50	0	D	67.0	10.8	0.0	0.0	0.0	-44.9	0.0	37.7	0.0	-4.8
6801	537473.11	4815904.63	0.50	0	N	62.5	10.8	0.0	0.0	0.0	-44.9	0.0	37.7	0.0	-9.4
6801	537473.11	4815904.63	0.50	0	E	-4.3	10.8	0.0	0.0	0.0	-44.9	0.0	37.7	0.0	-76.1
6802	537482.29	4815897.87	0.50	0	D	67.0	10.4	0.0	0.0	0.0	-45.1	0.0	37.7	0.0	-5.4
6802	537482.29	4815897.87	0.50	0	N	62.5	10.4	0.0	0.0	0.0	-45.1	0.0	37.7	0.0	-10.0
6802	537482.29	4815897.87	0.50	0	E	-4.3	10.4	0.0	0.0	0.0	-45.1	0.0	37.7	0.0	-76.7
6803	537491.30	4815891.23	0.50	0	D	67.0	10.6	0.0	0.0	0.0	-45.4	0.0	37.7	0.0	-5.4
6803	537491.30	4815891.23	0.50	0	N	62.5	10.6	0.0	0.0	0.0	-45.4	0.0	37.7	0.0	-9.9
6803	537491.30	4815891.23	0.50	0	E	-4.3	10.6	0.0	0.0	0.0	-45.4	0.0	37.7	0.0	-76.7
6804	537434.64	4815928.29	0.50	0	D	67.0	5.5	0.0	0.0	0.0	-44.0	0.0	37.8	0.0	-9.3
6804	537434.64	4815928.29	0.50	0	N	62.5	5.5	0.0	0.0	0.0	-44.0	0.0	37.8	0.0	-13.8
6804	537434.64	4815928.29	0.50	0	E	-4.3	5.5	0.0	0.0	0.0	-44.0	0.0	37.8	0.0	-80.6
6805	537440.87	4815923.70	0.50	0	D	67.0	10.8	0.0	0.0	0.0	-44.1	0.0	37.8	0.0	-4.2

Road, RLS-90, Name: "Conestogo Parkway North", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
6805	537440.87	4815923.70	0.50	0	N	62.5	10.8	0.0	0.0	0.0	-44.1	0.0	37.8	0.0	-8.7
6805	537440.87	4815923.70	0.50	0	E	-4.3	10.8	0.0	0.0	0.0	-44.1	0.0	37.8	0.0	-75.5
6806	537459.31	4815910.12	0.50	0	D	67.0	15.3	0.0	0.0	0.0	-44.6	0.0	37.8	0.0	-0.1
6806	537459.31	4815910.12	0.50	0	N	62.5	15.3	0.0	0.0	0.0	-44.6	0.0	37.8	0.0	-4.6
6806	537459.31	4815910.12	0.50	0	E	-4.3	15.3	0.0	0.0	0.0	-44.6	0.0	37.8	0.0	-71.4
6807	537473.55	4815899.64	0.50	0	D	67.0	1.8	0.0	0.0	0.0	-45.0	0.0	37.7	0.0	-13.9
6807	537473.55	4815899.64	0.50	0	N	62.5	1.8	0.0	0.0	0.0	-45.0	0.0	37.7	0.0	-18.4
6807	537473.55	4815899.64	0.50	0	E	-4.3	1.8	0.0	0.0	0.0	-45.0	0.0	37.7	0.0	-85.2
6808	537482.91	4815892.75	0.50	0	D	67.0	13.4	0.0	0.0	0.0	-45.2	0.0	37.7	0.0	-2.5
6808	537482.91	4815892.75	0.50	0	N	62.5	13.4	0.0	0.0	0.0	-45.2	0.0	37.7	0.0	-7.1
6808	537482.91	4815892.75	0.50	0	E	-4.3	13.4	0.0	0.0	0.0	-45.2	0.0	37.7	0.0	-73.8
6809	537492.68	4815885.56	0.50	0	D	67.0	4.0	0.0	0.0	0.0	-45.5	0.0	37.7	0.0	-12.1
6809	537492.68	4815885.56	0.50	0	N	62.5	4.0	0.0	0.0	0.0	-45.5	0.0	37.7	0.0	-16.6
6809	537492.68	4815885.56	0.50	0	E	-4.3	4.0	0.0	0.0	0.0	-45.5	0.0	37.7	0.0	-83.4
6810	537590.42	4815829.13	0.50	0	D	67.0	9.6	0.0	0.0	0.0	-47.6	0.0	37.4	0.0	-8.4
6810	537590.42	4815829.13	0.50	0	N	62.5	9.6	0.0	0.0	0.0	-47.6	0.0	37.4	0.0	-12.9
6810	537590.42	4815829.13	0.50	0	E	-4.3	9.6	0.0	0.0	0.0	-47.6	0.0	37.4	0.0	-79.7
6811	537595.05	4815827.13	0.50	0	D	67.0	0.2	0.0	0.0	0.0	-47.7	0.0	37.4	0.0	-17.8
6811	537595.05	4815827.13	0.50	0	N	62.5	0.2	0.0	0.0	0.0	-47.7	0.0	37.4	0.0	-22.3
6811	537595.05	4815827.13	0.50	0	E	-4.3	0.2	0.0	0.0	0.0	-47.7	0.0	37.4	0.0	-89.1
6812	537602.10	4815824.07	0.50	0	D	67.0	11.6	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-6.6
6812	537602.10	4815824.07	0.50	0	N	62.5	11.6	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-11.1
6812	537602.10	4815824.07	0.50	0	E	-4.3	11.6	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-77.9
6813	537610.38	4815820.49	0.50	0	D	67.0	5.7	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-12.5
6813	537610.38	4815820.49	0.50	0	N	62.5	5.7	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-17.1
6813	537610.38	4815820.49	0.50	0	E	-4.3	5.7	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-83.8
6814	537619.44	4815816.56	0.50	0	D	67.0	12.1	0.0	0.0	0.0	-48.1	0.0	37.3	0.0	-6.3
6814	537619.44	4815816.56	0.50	0	N	62.5	12.1	0.0	0.0	0.0	-48.1	0.0	37.3	0.0	-10.9
6814	537619.44	4815816.56	0.50	0	E	-4.3	12.1	0.0	0.0	0.0	-48.1	0.0	37.3	0.0	-77.6
6815	537629.74	4815812.10	0.50	0	D	67.0	8.1	0.0	0.0	0.0	-48.3	0.0	37.3	0.0	-10.5
6815	537629.74	4815812.10	0.50	0	N	62.5	8.1	0.0	0.0	0.0	-48.3	0.0	37.3	0.0	-15.0
6815	537629.74	4815812.10	0.50	0	E	-4.3	8.1	0.0	0.0	0.0	-48.3	0.0	37.3	0.0	-81.8
6816	537634.23	4815810.16	0.50	0	D	67.0	5.3	0.0	0.0	0.0	-48.3	0.0	37.3	0.0	-13.3
6816	537634.23	4815810.16	0.50	0	N	62.5	5.3	0.0	0.0	0.0	-48.3	0.0	37.3	0.0	-17.8
6816	537634.23	4815810.16	0.50	0	E	-4.3	5.3	0.0	0.0	0.0	-48.3	0.0	37.3	0.0	-84.6
6817	537646.33	4815804.92	0.50	0	D	67.0	13.6	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-5.2
6817	537646.33	4815804.92	0.50	0	N	62.5	13.6	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-9.7
6817	537646.33	4815804.92	0.50	0	E	-4.3	13.6	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-76.5
6819	537660.18	4815798.92	0.50	0	D	67.0	8.6	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-10.4
6819	537660.18	4815798.92	0.50	0	N	62.5	8.6	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-15.0
6819	537660.18	4815798.92	0.50	0	E	-4.3	8.6	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-81.7
6821	537666.74	4815796.09	0.50	0	D	67.0	8.5	0.0	0.0	0.0	-48.9	0.0	37.2	0.0	-10.6
6821	537666.74	4815796.09	0.50	0	N	62.5	8.5	0.0	0.0	0.0	-48.9	0.0	37.2	0.0	-15.1
6821	537666.74	4815796.09	0.50	0	E	-4.3	8.5	0.0	0.0	0.0	-48.9	0.0	37.2	0.0	-81.9
6822	537675.64	4815792.23	0.50	0	D	67.0	10.9	0.0	0.0	0.0	-49.1	0.0	37.2	0.0	-8.3
6822	537675.64	4815792.23	0.50	0	N	62.5	10.9	0.0	0.0	0.0	-49.1	0.0	37.2	0.0	-12.9
6822	537675.64	4815792.23	0.50	0	E	-4.3	10.9	0.0	0.0	0.0	-49.1	0.0	37.2	0.0	-79.6
6827	537591.88	4815824.41	0.50	0	D	67.0	11.9	0.0	0.0	0.0	-47.7	0.0	37.4	0.0	-6.1
6827	537591.88	4815824.41	0.50	0	N	62.5	11.9	0.0	0.0	0.0	-47.7	0.0	37.4	0.0	-10.6
6827	537591.88	4815824.41	0.50	0	E	-4.3	11.9	0.0	0.0	0.0	-47.7	0.0	37.4	0.0	-77.4
6828	537606.11	4815818.25	0.50	0	D	67.0	11.9	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-6.3
6828	537606.11	4815818.25	0.50	0	N	62.5	11.9	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-10.8
6828	537606.11	4815818.25	0.50	0	E	-4.3	11.9	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-77.6
6894	537614.98	4815814.41	0.50	0	D	67.0	5.8	0.0	0.0	0.0	-48.1	0.0	37.3	0.0	-12.6
6894	537614.98	4815814.41	0.50	0	N	62.5	5.8	0.0	0.0	0.0	-48.1	0.0	37.3	0.0	-17.1
6894	537614.98	4815814.41	0.50	0	E	-4.3	5.8	0.0	0.0	0.0	-48.1	0.0	37.3	0.0	-83.9
6895	537624.16	4815810.44	0.50	0	D	67.0	12.1	0.0	0.0	0.0	-48.2	0.0	37.3	0.0	-6.4
6895	537624.16	4815810.44	0.50	0	N	62.5	12.1	0.0	0.0	0.0	-48.2	0.0	37.3	0.0	-10.9
6895	537624.16	4815810.44	0.50	0	E	-4.3	12.1	0.0	0.0	0.0	-48.2	0.0	37.3	0.0	-77.7
6897	537632.45	4815806.84	0.50	0	D	67.0	2.7	0.0	0.0	0.0	-48.4	0.0	37.3	0.0	-16.0
6897	537632.45	4815806.84	0.50	0	N	62.5	2.7	0.0	0.0	0.0	-48.4	0.0	37.3	0.0	-20.5
6897	537632.45	4815806.84	0.50	0	E	-4.3	2.7	0.0	0.0	0.0	-48.4	0.0	37.3	0.0	-87.3
6899	537635.42	4815805.56	0.50	0	D	67.0	6.7	0.0	0.0	0.0	-48.4	0.0	37.3	0.0	-12.0

Road, RLS-90, Name: "Conestogo Parkway North", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
6899	537635.42	4815805.56	0.50	0	N	62.5	6.7	0.0	0.0	0.0	-48.4	0.0	37.3	0.0	-16.6
6899	537635.42	4815805.56	0.50	0	E	-4.3	6.7	0.0	0.0	0.0	-48.4	0.0	37.3	0.0	-83.3
6902	537646.55	4815800.74	0.50	0	D	67.0	12.9	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-5.9
6902	537646.55	4815800.74	0.50	0	N	62.5	12.9	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-10.5
6902	537646.55	4815800.74	0.50	0	E	-4.3	12.9	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-77.2
6904	537658.84	4815795.42	0.50	0	D	67.0	8.6	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-10.5
6904	537658.84	4815795.42	0.50	0	N	62.5	8.6	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-15.0
6904	537658.84	4815795.42	0.50	0	E	-4.3	8.6	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-81.8
6906	537664.81	4815792.83	0.50	0	D	67.0	7.7	0.0	0.0	0.0	-48.9	0.0	37.2	0.0	-11.4
6906	537664.81	4815792.83	0.50	0	N	62.5	7.7	0.0	0.0	0.0	-48.9	0.0	37.2	0.0	-16.0
6906	537664.81	4815792.83	0.50	0	E	-4.3	7.7	0.0	0.0	0.0	-48.9	0.0	37.2	0.0	-82.7
6909	537668.12	4815791.40	0.50	0	D	67.0	1.3	0.0	0.0	0.0	-49.0	0.0	37.2	0.0	-17.9
6909	537668.12	4815791.40	0.50	0	N	62.5	1.3	0.0	0.0	0.0	-49.0	0.0	37.2	0.0	-22.5
6909	537668.12	4815791.40	0.50	0	E	-4.3	1.3	0.0	0.0	0.0	-49.0	0.0	37.2	0.0	-89.2
6910	537674.27	4815788.74	0.50	0	D	67.0	10.8	0.0	0.0	0.0	-49.1	0.0	37.2	0.0	-8.5
6910	537674.27	4815788.74	0.50	0	N	62.5	10.8	0.0	0.0	0.0	-49.1	0.0	37.2	0.0	-13.0
6910	537674.27	4815788.74	0.50	0	E	-4.3	10.8	0.0	0.0	0.0	-49.1	0.0	37.2	0.0	-79.8
7072	537682.86	4815789.33	0.50	0	D	67.0	5.7	0.0	0.0	0.0	-49.2	0.0	37.2	0.0	-13.7
7072	537682.86	4815789.33	0.50	0	N	62.5	5.7	0.0	0.0	0.0	-49.2	0.0	37.2	0.0	-18.2
7072	537682.86	4815789.33	0.50	0	E	-4.3	5.7	0.0	0.0	0.0	-49.2	0.0	37.2	0.0	-85.0
7073	537692.76	4815786.39	0.50	0	D	67.0	12.3	0.0	0.0	0.0	-49.3	0.0	37.2	0.0	-7.2
7073	537692.76	4815786.39	0.50	0	N	62.5	12.3	0.0	0.0	0.0	-49.3	0.0	37.2	0.0	-11.7
7073	537692.76	4815786.39	0.50	0	E	-4.3	12.3	0.0	0.0	0.0	-49.3	0.0	37.2	0.0	-78.5
7075	537702.04	4815783.64	0.50	0	D	67.0	3.9	0.0	0.0	0.0	-49.5	0.0	37.2	0.0	-15.8
7075	537702.04	4815783.64	0.50	0	N	62.5	3.9	0.0	0.0	0.0	-49.5	0.0	37.2	0.0	-20.3
7075	537702.04	4815783.64	0.50	0	E	-4.3	3.9	0.0	0.0	0.0	-49.5	0.0	37.2	0.0	-87.0
7077	537716.33	4815779.40	0.50	0	D	67.0	14.4	0.0	0.0	0.0	-49.7	0.0	37.1	0.0	-5.4
7077	537716.33	4815779.40	0.50	0	N	62.5	14.4	0.0	0.0	0.0	-49.7	0.0	37.1	0.0	-9.9
7077	537716.33	4815779.40	0.50	0	E	-4.3	14.4	0.0	0.0	0.0	-49.7	0.0	37.1	0.0	-76.7
7079	537735.80	4815773.62	0.50	0	D	67.0	11.2	0.0	0.0	0.0	-50.0	0.0	37.1	0.0	-8.8
7079	537735.80	4815773.62	0.50	0	N	62.5	11.2	0.0	0.0	0.0	-50.0	0.0	37.1	0.0	-13.4
7079	537735.80	4815773.62	0.50	0	E	-4.3	11.2	0.0	0.0	0.0	-50.0	0.0	37.1	0.0	-80.1
7081	537745.86	4815770.63	0.50	0	D	67.0	8.9	0.0	0.0	0.0	-50.1	0.0	37.1	0.0	-11.3
7081	537745.86	4815770.63	0.50	0	N	62.5	8.9	0.0	0.0	0.0	-50.1	0.0	37.1	0.0	-15.8
7081	537745.86	4815770.63	0.50	0	E	-4.3	8.9	0.0	0.0	0.0	-50.1	0.0	37.1	0.0	-82.6
7084	537760.72	4815766.23	0.50	0	D	67.0	13.7	0.0	0.0	0.0	-50.3	0.0	37.1	0.0	-6.7
7084	537760.72	4815766.23	0.50	0	N	62.5	13.7	0.0	0.0	0.0	-50.3	0.0	37.1	0.0	-11.2
7084	537760.72	4815766.23	0.50	0	E	-4.3	13.7	0.0	0.0	0.0	-50.3	0.0	37.1	0.0	-78.0
7091	537771.92	4815762.90	0.50	0	D	67.0	-9.3	0.0	0.0	0.0	-50.5	0.0	37.0	0.0	-29.8
7091	537771.92	4815762.90	0.50	0	N	62.5	-9.3	0.0	0.0	0.0	-50.5	0.0	37.0	0.0	-34.3
7091	537771.92	4815762.90	0.50	0	E	-4.3	-9.3	0.0	0.0	0.0	-50.5	0.0	37.0	0.0	-101.1
7100	537684.56	4815784.92	0.50	0	D	67.0	9.8	0.0	0.0	0.0	-49.3	0.0	37.2	0.0	-9.7
7100	537684.56	4815784.92	0.50	0	N	62.5	9.8	0.0	0.0	0.0	-49.3	0.0	37.2	0.0	-14.2
7100	537684.56	4815784.92	0.50	0	E	-4.3	9.8	0.0	0.0	0.0	-49.3	0.0	37.2	0.0	-81.0
7103	537697.30	4815781.14	0.50	0	D	67.0	12.3	0.0	0.0	0.0	-49.5	0.0	37.2	0.0	-7.3
7103	537697.30	4815781.14	0.50	0	N	62.5	12.3	0.0	0.0	0.0	-49.5	0.0	37.2	0.0	-11.8
7103	537697.30	4815781.14	0.50	0	E	-4.3	12.3	0.0	0.0	0.0	-49.5	0.0	37.2	0.0	-78.6
7106	537706.67	4815778.35	0.50	0	D	67.0	3.9	0.0	0.0	0.0	-49.6	0.0	37.2	0.0	-15.8
7106	537706.67	4815778.35	0.50	0	N	62.5	3.9	0.0	0.0	0.0	-49.6	0.0	37.2	0.0	-20.3
7106	537706.67	4815778.35	0.50	0	E	-4.3	3.9	0.0	0.0	0.0	-49.6	0.0	37.2	0.0	-87.1
7108	537721.10	4815774.07	0.50	0	D	67.0	14.4	0.0	0.0	0.0	-49.8	0.0	37.1	0.0	-5.5
7108	537721.10	4815774.07	0.50	0	N	62.5	14.4	0.0	0.0	0.0	-49.8	0.0	37.1	0.0	-10.0
7108	537721.10	4815774.07	0.50	0	E	-4.3	14.4	0.0	0.0	0.0	-49.8	0.0	37.1	0.0	-76.8
7112	537740.76	4815768.24	0.50	0	D	67.0	11.3	0.0	0.0	0.0	-50.1	0.0	37.1	0.0	-8.9
7112	537740.76	4815768.24	0.50	0	N	62.5	11.3	0.0	0.0	0.0	-50.1	0.0	37.1	0.0	-13.4
7112	537740.76	4815768.24	0.50	0	E	-4.3	11.3	0.0	0.0	0.0	-50.1	0.0	37.1	0.0	-80.2
7115	537750.92	4815765.22	0.50	0	D	67.0	8.9	0.0	0.0	0.0	-50.3	0.0	37.1	0.0	-11.4
7115	537750.92	4815765.22	0.50	0	N	62.5	8.9	0.0	0.0	0.0	-50.3	0.0	37.1	0.0	-15.9
7115	537750.92	4815765.22	0.50	0	E	-4.3	8.9	0.0	0.0	0.0	-50.3	0.0	37.1	0.0	-82.7
7116	537762.79	4815761.70	0.50	0	D	67.0	12.3	0.0	0.0	0.0	-50.4	0.0	37.0	0.0	-8.1
7116	537762.79	4815761.70	0.50	0	N	62.5	12.3	0.0	0.0	0.0	-50.4	0.0	37.0	0.0	-12.7
7116	537762.79	4815761.70	0.50	0	E	-4.3	12.3	0.0	0.0	0.0	-50.4	0.0	37.0	0.0	-79.4

Road, RLS-90, Name: "Conestogo Parkway South", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
5927	537039.53	4816526.92	0.50	0	D	67.0	21.1	0.0	0.0	0.0	-39.3	-1.9	0.0	0.0	46.9
5927	537039.53	4816526.92	0.50	0	N	62.5	21.1	0.0	0.0	0.0	-39.3	-1.9	0.0	0.0	42.4
5927	537039.53	4816526.92	0.50	0	E	-4.3	21.1	0.0	0.0	0.0	-39.3	-1.9	0.0	0.0	-24.4
5930	537080.00	4816439.34	0.50	0	D	67.0	18.1	0.0	0.0	0.0	-35.7	-0.5	0.0	0.0	48.9
5930	537080.00	4816439.34	0.50	0	N	62.5	18.1	0.0	0.0	0.0	-35.7	-0.5	0.0	0.0	44.4
5930	537080.00	4816439.34	0.50	0	E	-4.3	18.1	0.0	0.0	0.0	-35.7	-0.5	0.0	0.0	-22.4
5932	537106.99	4816380.96	0.50	0	D	67.0	18.1	0.0	0.0	0.0	-32.8	0.0	0.0	0.0	52.4
5932	537106.99	4816380.96	0.50	0	N	62.5	18.1	0.0	0.0	0.0	-32.8	0.0	0.0	0.0	47.8
5932	537106.99	4816380.96	0.50	0	E	-4.3	18.1	0.0	0.0	0.0	-32.8	0.0	0.0	0.0	-18.9
5937	537036.12	4816525.34	0.50	0	D	67.0	21.1	0.0	0.0	0.0	-39.4	-1.9	0.0	0.0	46.8
5937	537036.12	4816525.34	0.50	0	N	62.5	21.1	0.0	0.0	0.0	-39.4	-1.9	0.0	0.0	42.3
5937	537036.12	4816525.34	0.50	0	E	-4.3	21.1	0.0	0.0	0.0	-39.4	-1.9	0.0	0.0	-24.5
5938	537076.60	4816437.77	0.50	0	D	67.0	18.1	0.0	0.0	0.0	-35.8	-0.6	0.0	0.0	48.8
5938	537076.60	4816437.77	0.50	0	N	62.5	18.1	0.0	0.0	0.0	-35.8	-0.6	0.0	0.0	44.3
5938	537076.60	4816437.77	0.50	0	E	-4.3	18.1	0.0	0.0	0.0	-35.8	-0.6	0.0	0.0	-22.5
5940	537103.59	4816379.39	0.50	0	D	67.0	18.1	0.0	0.0	0.0	-32.9	0.0	0.0	0.0	52.2
5940	537103.59	4816379.39	0.50	0	N	62.5	18.1	0.0	0.0	0.0	-32.9	0.0	0.0	0.0	47.7
5940	537103.59	4816379.39	0.50	0	E	-4.3	18.1	0.0	0.0	0.0	-32.9	0.0	0.0	0.0	-19.1
5945	537127.12	4816337.44	0.50	0	D	67.0	15.0	0.0	0.0	0.0	-30.6	0.0	0.0	0.0	51.5
5945	537127.12	4816337.44	0.50	0	N	62.5	15.0	0.0	0.0	0.0	-30.6	0.0	0.0	0.0	46.9
5945	537127.12	4816337.44	0.50	0	E	-4.3	15.0	0.0	0.0	0.0	-30.6	0.0	0.0	0.0	-19.8
5947	537140.41	4816308.77	0.50	0	D	67.0	15.0	0.0	0.0	0.0	-29.5	0.0	0.0	0.0	52.5
5947	537140.41	4816308.77	0.50	0	N	62.5	15.0	0.0	0.0	0.0	-29.5	0.0	0.0	0.0	48.0
5947	537140.41	4816308.77	0.50	0	E	-4.3	15.0	0.0	0.0	0.0	-29.5	0.0	0.0	0.0	-18.8
5948	537150.60	4816286.78	0.50	0	D	67.0	12.3	0.0	0.0	0.0	-29.2	0.0	0.0	0.0	50.2
5948	537150.60	4816286.78	0.50	0	N	62.5	12.3	0.0	0.0	0.0	-29.2	0.0	0.0	0.0	45.6
5948	537150.60	4816286.78	0.50	0	E	-4.3	12.3	0.0	0.0	0.0	-29.2	0.0	0.0	0.0	-21.1
5950	537159.48	4816267.61	0.50	0	D	67.0	14.0	0.0	0.0	0.0	-29.3	0.0	40.0	0.0	11.8
5950	537159.48	4816267.61	0.50	0	N	62.5	14.0	0.0	0.0	0.0	-29.3	0.0	40.0	0.0	7.2
5950	537159.48	4816267.61	0.50	0	E	-4.3	14.0	0.0	0.0	0.0	-29.3	0.0	40.0	0.0	-59.5
5952	537149.01	4816290.20	0.50	1	D	67.0	5.8	0.0	0.0	0.0	-33.7	0.0	0.0	2.0	37.2
5952	537149.01	4816290.20	0.50	1	N	62.5	5.8	0.0	0.0	0.0	-33.7	0.0	0.0	2.0	32.6
5952	537149.01	4816290.20	0.50	1	E	-4.3	5.8	0.0	0.0	0.0	-33.7	0.0	0.0	2.0	-34.1
5954	537150.45	4816287.10	0.50	1	D	67.0	4.8	0.0	0.0	0.0	-33.7	0.0	0.0	2.0	36.1
5954	537150.45	4816287.10	0.50	1	N	62.5	4.8	0.0	0.0	0.0	-33.7	0.0	0.0	2.0	31.6
5954	537150.45	4816287.10	0.50	1	E	-4.3	4.8	0.0	0.0	0.0	-33.7	0.0	0.0	2.0	-35.2
5956	537151.54	4816284.74	0.50	1	D	67.0	3.4	0.0	0.0	0.0	-33.7	0.0	0.0	2.0	34.8
5956	537151.54	4816284.74	0.50	1	N	62.5	3.4	0.0	0.0	0.0	-33.7	0.0	0.0	2.0	30.2
5956	537151.54	4816284.74	0.50	1	E	-4.3	3.4	0.0	0.0	0.0	-33.7	0.0	0.0	2.0	-36.5
5962	537133.60	4816323.46	0.50	1	D	67.0	10.3	0.0	0.0	0.0	-38.9	-1.8	0.0	2.0	34.6
5962	537133.60	4816323.46	0.50	1	N	62.5	10.3	0.0	0.0	0.0	-38.9	-1.8	0.0	2.0	30.1
5962	537133.60	4816323.46	0.50	1	E	-4.3	10.3	0.0	0.0	0.0	-38.9	-1.8	0.0	2.0	-36.7
5964	537140.01	4816309.63	0.50	1	D	67.0	13.0	0.0	0.0	0.0	-38.9	-1.8	0.0	2.0	37.4
5964	537140.01	4816309.63	0.50	1	N	62.5	13.0	0.0	0.0	0.0	-38.9	-1.8	0.0	2.0	32.8
5964	537140.01	4816309.63	0.50	1	E	-4.3	13.0	0.0	0.0	0.0	-38.9	-1.8	0.0	2.0	-33.9
5966	537144.54	4816299.87	0.50	1	D	67.0	2.4	0.0	0.0	0.0	-38.8	-1.8	0.0	2.0	26.9
5966	537144.54	4816299.87	0.50	1	N	62.5	2.4	0.0	0.0	0.0	-38.8	-1.8	0.0	2.0	22.3
5966	537144.54	4816299.87	0.50	1	E	-4.3	2.4	0.0	0.0	0.0	-38.8	-1.8	0.0	2.0	-44.4
5968	537147.90	4816292.60	0.50	1	D	67.0	11.5	0.0	0.0	0.0	-38.8	-1.8	0.0	2.0	36.0
5968	537147.90	4816292.60	0.50	1	N	62.5	11.5	0.0	0.0	0.0	-38.8	-1.8	0.0	2.0	31.5
5968	537147.90	4816292.60	0.50	1	E	-4.3	11.5	0.0	0.0	0.0	-38.8	-1.8	0.0	2.0	-35.3
5972	537123.67	4816335.97	0.50	0	D	67.0	15.0	0.0	0.0	0.0	-30.8	0.0	0.0	0.0	51.2
5972	537123.67	4816335.97	0.50	0	N	62.5	15.0	0.0	0.0	0.0	-30.8	0.0	0.0	0.0	46.7
5972	537123.67	4816335.97	0.50	0	E	-4.3	15.0	0.0	0.0	0.0	-30.8	0.0	0.0	0.0	-20.1
5974	537136.85	4816307.53	0.50	0	D	67.0	15.0	0.0	0.0	0.0	-29.8	0.0	0.0	0.0	52.2
5974	537136.85	4816307.53	0.50	0	N	62.5	15.0	0.0	0.0	0.0	-29.8	0.0	0.0	0.0	47.7
5974	537136.85	4816307.53	0.50	0	E	-4.3	15.0	0.0	0.0	0.0	-29.8	0.0	0.0	0.0	-19.1
5977	537147.15	4816285.32	0.50	0	D	67.0	12.5	0.0	0.0	0.0	-29.5	0.0	0.0	0.0	50.0
5977	537147.15	4816285.32	0.50	0	N	62.5	12.5	0.0	0.0	0.0	-29.5	0.0	0.0	0.0	45.5
5977	537147.15	4816285.32	0.50	0	E	-4.3	12.5	0.0	0.0	0.0	-29.5	0.0	0.0	0.0	-21.3
5979	537156.13	4816265.92	0.50	0	D	67.0	14.0	0.0	0.0	0.0	-29.6	0.0	40.0	0.0	11.5
5979	537156.13	4816265.92	0.50	0	N	62.5	14.0	0.0	0.0	0.0	-29.6	0.0	40.0	0.0	6.9
5979	537156.13	4816265.92	0.50	0	E	-4.3	14.0	0.0	0.0	0.0	-29.6	0.0	40.0	0.0	-59.8

Road, RLS-90, Name: "Conestogo Parkway South", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
5982	537145.57	4816288.72	0.50	1	D	67.0	5.9	0.0	0.0	0.0	-33.9	0.0	0.0	2.0	37.1
5982	537145.57	4816288.72	0.50	1	N	62.5	5.9	0.0	0.0	0.0	-33.9	0.0	0.0	2.0	32.5
5982	537145.57	4816288.72	0.50	1	E	-4.3	5.9	0.0	0.0	0.0	-33.9	0.0	0.0	2.0	-34.2
5985	537147.04	4816285.54	0.50	1	D	67.0	4.9	0.0	0.0	0.0	-33.9	0.0	0.0	2.0	36.0
5985	537147.04	4816285.54	0.50	1	N	62.5	4.9	0.0	0.0	0.0	-33.9	0.0	0.0	2.0	31.5
5985	537147.04	4816285.54	0.50	1	E	-4.3	4.9	0.0	0.0	0.0	-33.9	0.0	0.0	2.0	-35.3
5988	537148.16	4816283.13	0.50	1	D	67.0	3.5	0.0	0.0	0.0	-33.9	0.0	0.0	2.0	34.6
5988	537148.16	4816283.13	0.50	1	N	62.5	3.5	0.0	0.0	0.0	-33.9	0.0	0.0	2.0	30.1
5988	537148.16	4816283.13	0.50	1	E	-4.3	3.5	0.0	0.0	0.0	-33.9	0.0	0.0	2.0	-36.7
5993	537129.99	4816322.34	0.50	1	D	67.0	10.4	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	34.5
5993	537129.99	4816322.34	0.50	1	N	62.5	10.4	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	30.0
5993	537129.99	4816322.34	0.50	1	E	-4.3	10.4	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	-36.8
5996	537136.49	4816308.32	0.50	1	D	67.0	13.0	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	37.2
5996	537136.49	4816308.32	0.50	1	N	62.5	13.0	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	32.7
5996	537136.49	4816308.32	0.50	1	E	-4.3	13.0	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	-34.1
5999	537141.07	4816298.42	0.50	1	D	67.0	2.5	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	26.7
5999	537141.07	4816298.42	0.50	1	N	62.5	2.5	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	22.2
5999	537141.07	4816298.42	0.50	1	E	-4.3	2.5	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	-44.6
6002	537144.49	4816291.05	0.50	1	D	67.0	11.6	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	35.9
6002	537144.49	4816291.05	0.50	1	N	62.5	11.6	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	31.3
6002	537144.49	4816291.05	0.50	1	E	-4.3	11.6	0.0	0.0	0.0	-39.0	-1.8	0.0	2.0	-35.4
6007	537172.48	4816240.18	0.50	0	D	67.0	15.5	0.0	0.0	0.0	-30.1	0.0	39.9	0.0	12.5
6007	537172.48	4816240.18	0.50	0	N	62.5	15.5	0.0	0.0	0.0	-30.1	0.0	39.9	0.0	7.9
6007	537172.48	4816240.18	0.50	0	E	-4.3	15.5	0.0	0.0	0.0	-30.1	0.0	39.9	0.0	-58.8
6009	537187.83	4816208.30	0.50	0	D	67.0	15.5	0.0	0.0	0.0	-31.6	0.0	39.7	0.0	11.2
6009	537187.83	4816208.30	0.50	0	N	62.5	15.5	0.0	0.0	0.0	-31.6	0.0	39.7	0.0	6.7
6009	537187.83	4816208.30	0.50	0	E	-4.3	15.5	0.0	0.0	0.0	-31.6	0.0	39.7	0.0	-60.1
6017	537169.10	4816238.55	0.50	0	D	67.0	15.5	0.0	0.0	0.0	-30.4	0.0	39.9	0.0	12.3
6017	537169.10	4816238.55	0.50	0	N	62.5	15.5	0.0	0.0	0.0	-30.4	0.0	39.9	0.0	7.7
6017	537169.10	4816238.55	0.50	0	E	-4.3	15.5	0.0	0.0	0.0	-30.4	0.0	39.9	0.0	-59.0
6020	537184.45	4816206.67	0.50	0	D	67.0	15.5	0.0	0.0	0.0	-31.8	0.0	39.6	0.0	11.1
6020	537184.45	4816206.67	0.50	0	N	62.5	15.5	0.0	0.0	0.0	-31.8	0.0	39.6	0.0	6.5
6020	537184.45	4816206.67	0.50	0	E	-4.3	15.5	0.0	0.0	0.0	-31.8	0.0	39.6	0.0	-60.2
6031	537197.56	4816188.73	0.50	0	D	67.0	9.3	0.0	0.0	0.0	-32.7	0.0	39.5	0.0	4.2
6031	537197.56	4816188.73	0.50	0	N	62.5	9.3	0.0	0.0	0.0	-32.7	0.0	39.5	0.0	-0.3
6031	537197.56	4816188.73	0.50	0	E	-4.3	9.3	0.0	0.0	0.0	-32.7	0.0	39.5	0.0	-67.1
6033	537212.37	4816162.53	0.50	0	D	67.0	17.1	0.0	0.0	0.0	-34.0	0.0	39.3	0.0	10.9
6033	537212.37	4816162.53	0.50	0	N	62.5	17.1	0.0	0.0	0.0	-34.0	0.0	39.3	0.0	6.3
6033	537212.37	4816162.53	0.50	0	E	-4.3	17.1	0.0	0.0	0.0	-34.0	0.0	39.3	0.0	-60.4
6040	537195.29	4816185.11	0.50	0	D	67.0	11.0	0.0	0.0	0.0	-32.9	0.0	39.5	0.0	5.7
6040	537195.29	4816185.11	0.50	0	N	62.5	11.0	0.0	0.0	0.0	-32.9	0.0	39.5	0.0	1.1
6040	537195.29	4816185.11	0.50	0	E	-4.3	11.0	0.0	0.0	0.0	-32.9	0.0	39.5	0.0	-65.6
6043	537210.11	4816158.92	0.50	0	D	67.0	16.8	0.0	0.0	0.0	-34.2	0.0	39.2	0.0	10.3
6043	537210.11	4816158.92	0.50	0	N	62.5	16.8	0.0	0.0	0.0	-34.2	0.0	39.2	0.0	5.8
6043	537210.11	4816158.92	0.50	0	E	-4.3	16.8	0.0	0.0	0.0	-34.2	0.0	39.2	0.0	-61.0
6564	537242.63	4816112.43	0.50	0	D	67.0	12.4	0.0	0.0	0.0	-36.5	0.0	38.9	0.0	4.1
6564	537242.63	4816112.43	0.50	0	N	62.5	12.4	0.0	0.0	0.0	-36.5	0.0	38.9	0.0	-0.5
6564	537242.63	4816112.43	0.50	0	E	-4.3	12.4	0.0	0.0	0.0	-36.5	0.0	38.9	0.0	-67.2
6566	537253.61	4816096.56	0.50	0	D	67.0	13.3	0.0	0.0	0.0	-37.2	0.0	38.8	0.0	4.3
6566	537253.61	4816096.56	0.50	0	N	62.5	13.3	0.0	0.0	0.0	-37.2	0.0	38.8	0.0	-0.2
6566	537253.61	4816096.56	0.50	0	E	-4.3	13.3	0.0	0.0	0.0	-37.2	0.0	38.8	0.0	-67.0
6571	537241.37	4816107.67	0.50	0	D	67.0	13.8	0.0	0.0	0.0	-36.7	0.0	38.9	0.0	5.2
6571	537241.37	4816107.67	0.50	0	N	62.5	13.8	0.0	0.0	0.0	-36.7	0.0	38.9	0.0	0.7
6571	537241.37	4816107.67	0.50	0	E	-4.3	13.8	0.0	0.0	0.0	-36.7	0.0	38.9	0.0	-66.1
6574	537252.35	4816091.79	0.50	0	D	67.0	11.7	0.0	0.0	0.0	-37.4	0.0	38.8	0.0	2.6
6574	537252.35	4816091.79	0.50	0	N	62.5	11.7	0.0	0.0	0.0	-37.4	0.0	38.8	0.0	-1.9
6574	537252.35	4816091.79	0.50	0	E	-4.3	11.7	0.0	0.0	0.0	-37.4	0.0	38.8	0.0	-68.7
6582	537231.39	4816129.81	0.50	0	D	67.0	13.8	0.0	0.0	0.0	-35.6	0.0	39.0	0.0	6.2
6582	537231.39	4816129.81	0.50	0	N	62.5	13.8	0.0	0.0	0.0	-35.6	0.0	39.0	0.0	1.7
6582	537231.39	4816129.81	0.50	0	E	-4.3	13.8	0.0	0.0	0.0	-35.6	0.0	39.0	0.0	-65.1
6586	537228.20	4816127.85	0.50	0	D	67.0	13.8	0.0	0.0	0.0	-35.7	0.0	39.0	0.0	6.1
6586	537228.20	4816127.85	0.50	0	N	62.5	13.8	0.0	0.0	0.0	-35.7	0.0	39.0	0.0	1.6
6586	537228.20	4816127.85	0.50	0	E	-4.3	13.8	0.0	0.0	0.0	-35.7	0.0	39.0	0.0	-65.2

Road, RLS-90, Name: "Conestogo Parkway South", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
6620	537269.06	4816074.92	0.50	0	D	67.0	15.1	0.0	0.0	0.0	-38.1	0.0	38.7	0.0	5.3
6620	537269.06	4816074.92	0.50	0	N	62.5	15.1	0.0	0.0	0.0	-38.1	0.0	38.7	0.0	0.8
6620	537269.06	4816074.92	0.50	0	E	-4.3	15.1	0.0	0.0	0.0	-38.1	0.0	38.7	0.0	-66.0
6622	537282.95	4816055.87	0.50	0	D	67.0	11.8	0.0	0.0	0.0	-38.9	0.0	38.5	0.0	1.4
6622	537282.95	4816055.87	0.50	0	N	62.5	11.8	0.0	0.0	0.0	-38.9	0.0	38.5	0.0	-3.1
6622	537282.95	4816055.87	0.50	0	E	-4.3	11.8	0.0	0.0	0.0	-38.9	0.0	38.5	0.0	-69.9
6625	537268.32	4816069.58	0.50	0	D	67.0	16.0	0.0	0.0	0.0	-38.3	0.0	38.6	0.0	6.1
6625	537268.32	4816069.58	0.50	0	N	62.5	16.0	0.0	0.0	0.0	-38.3	0.0	38.6	0.0	1.5
6625	537268.32	4816069.58	0.50	0	E	-4.3	16.0	0.0	0.0	0.0	-38.3	0.0	38.6	0.0	-65.2
6627	537282.21	4816050.53	0.50	0	D	67.0	8.7	0.0	0.0	0.0	-39.1	0.0	38.5	0.0	-1.9
6627	537282.21	4816050.53	0.50	0	N	62.5	8.7	0.0	0.0	0.0	-39.1	0.0	38.5	0.0	-6.4
6627	537282.21	4816050.53	0.50	0	E	-4.3	8.7	0.0	0.0	0.0	-39.1	0.0	38.5	0.0	-73.2
6642	537294.68	4816041.34	0.50	0	D	67.0	13.5	0.0	0.0	0.0	-39.5	0.0	38.4	0.0	2.6
6642	537294.68	4816041.34	0.50	0	N	62.5	13.5	0.0	0.0	0.0	-39.5	0.0	38.4	0.0	-1.9
6642	537294.68	4816041.34	0.50	0	E	-4.3	13.5	0.0	0.0	0.0	-39.5	0.0	38.4	0.0	-68.7
6644	537307.12	4816026.92	0.50	0	D	67.0	11.9	0.0	0.0	0.0	-40.1	0.0	38.4	0.0	0.5
6644	537307.12	4816026.92	0.50	0	N	62.5	11.9	0.0	0.0	0.0	-40.1	0.0	38.4	0.0	-4.0
6644	537307.12	4816026.92	0.50	0	E	-4.3	11.9	0.0	0.0	0.0	-40.1	0.0	38.4	0.0	-70.8
6648	537294.24	4816036.10	0.50	0	D	67.0	14.8	0.0	0.0	0.0	-39.7	0.0	38.4	0.0	3.7
6648	537294.24	4816036.10	0.50	0	N	62.5	14.8	0.0	0.0	0.0	-39.7	0.0	38.4	0.0	-0.8
6648	537294.24	4816036.10	0.50	0	E	-4.3	14.8	0.0	0.0	0.0	-39.7	0.0	38.4	0.0	-67.6
6651	537306.68	4816021.68	0.50	0	D	67.0	9.1	0.0	0.0	0.0	-40.2	0.0	38.3	0.0	-2.4
6651	537306.68	4816021.68	0.50	0	N	62.5	9.1	0.0	0.0	0.0	-40.2	0.0	38.3	0.0	-6.9
6651	537306.68	4816021.68	0.50	0	E	-4.3	9.1	0.0	0.0	0.0	-40.2	0.0	38.3	0.0	-73.7
6677	537317.14	4816015.55	0.50	0	D	67.0	11.7	0.0	0.0	0.0	-40.5	0.0	38.3	0.0	-0.0
6677	537317.14	4816015.55	0.50	0	N	62.5	11.7	0.0	0.0	0.0	-40.5	0.0	38.3	0.0	-4.6
6677	537317.14	4816015.55	0.50	0	E	-4.3	11.7	0.0	0.0	0.0	-40.5	0.0	38.3	0.0	-71.3
6680	537326.07	4816005.64	0.50	0	D	67.0	10.7	0.0	0.0	0.0	-40.9	0.0	38.2	0.0	-1.4
6680	537326.07	4816005.64	0.50	0	N	62.5	10.7	0.0	0.0	0.0	-40.9	0.0	38.2	0.0	-5.9
6680	537326.07	4816005.64	0.50	0	E	-4.3	10.7	0.0	0.0	0.0	-40.9	0.0	38.2	0.0	-72.7
6683	537332.20	4815998.84	0.50	0	D	67.0	8.1	0.0	0.0	0.0	-41.1	0.0	38.2	0.0	-4.2
6683	537332.20	4815998.84	0.50	0	N	62.5	8.1	0.0	0.0	0.0	-41.1	0.0	38.2	0.0	-8.7
6683	537332.20	4815998.84	0.50	0	E	-4.3	8.1	0.0	0.0	0.0	-41.1	0.0	38.2	0.0	-75.5
6687	537337.82	4815992.61	0.50	0	D	67.0	10.1	0.0	0.0	0.0	-41.4	0.0	38.2	0.0	-2.4
6687	537337.82	4815992.61	0.50	0	N	62.5	10.1	0.0	0.0	0.0	-41.4	0.0	38.2	0.0	-6.9
6687	537337.82	4815992.61	0.50	0	E	-4.3	10.1	0.0	0.0	0.0	-41.4	0.0	38.2	0.0	-73.7
6692	537316.95	4816010.15	0.50	0	D	67.0	13.5	0.0	0.0	0.0	-40.7	0.0	38.3	0.0	1.6
6692	537316.95	4816010.15	0.50	0	N	62.5	13.5	0.0	0.0	0.0	-40.7	0.0	38.3	0.0	-2.9
6692	537316.95	4816010.15	0.50	0	E	-4.3	13.5	0.0	0.0	0.0	-40.7	0.0	38.3	0.0	-69.7
6704	537328.59	4815997.25	0.50	0	D	67.0	10.8	0.0	0.0	0.0	-41.2	0.0	38.2	0.0	-1.5
6704	537328.59	4815997.25	0.50	0	N	62.5	10.8	0.0	0.0	0.0	-41.2	0.0	38.2	0.0	-6.0
6704	537328.59	4815997.25	0.50	0	E	-4.3	10.8	0.0	0.0	0.0	-41.2	0.0	38.2	0.0	-72.8
6710	537334.88	4815990.27	0.50	0	D	67.0	8.3	0.0	0.0	0.0	-41.4	0.0	38.2	0.0	-4.3
6710	537334.88	4815990.27	0.50	0	N	62.5	8.3	0.0	0.0	0.0	-41.4	0.0	38.2	0.0	-8.8
6710	537334.88	4815990.27	0.50	0	E	-4.3	8.3	0.0	0.0	0.0	-41.4	0.0	38.2	0.0	-75.6
6713	537337.80	4815987.03	0.50	0	D	67.0	3.1	0.0	0.0	0.0	-41.5	0.0	38.2	0.0	-9.6
6713	537337.80	4815987.03	0.50	0	N	62.5	3.1	0.0	0.0	0.0	-41.5	0.0	38.2	0.0	-14.1
6713	537337.80	4815987.03	0.50	0	E	-4.3	3.1	0.0	0.0	0.0	-41.5	0.0	38.2	0.0	-80.9
6716	537405.59	4815925.30	0.50	0	D	67.0	11.9	0.0	0.0	0.0	-43.7	0.0	37.9	0.0	-2.7
6716	537405.59	4815925.30	0.50	0	N	62.5	11.9	0.0	0.0	0.0	-43.7	0.0	37.9	0.0	-7.2
6716	537405.59	4815925.30	0.50	0	E	-4.3	11.9	0.0	0.0	0.0	-43.7	0.0	37.9	0.0	-74.0
6718	537424.46	4815910.69	0.50	0	D	67.0	15.1	0.0	0.0	0.0	-44.3	0.0	37.8	0.0	0.1
6718	537424.46	4815910.69	0.50	0	N	62.5	15.1	0.0	0.0	0.0	-44.3	0.0	37.8	0.0	-4.5
6718	537424.46	4815910.69	0.50	0	E	-4.3	15.1	0.0	0.0	0.0	-44.3	0.0	37.8	0.0	-71.2
6720	537445.18	4815894.66	0.50	0	D	67.0	13.0	0.0	0.0	0.0	-44.8	0.0	37.7	0.0	-2.5
6720	537445.18	4815894.66	0.50	0	N	62.5	13.0	0.0	0.0	0.0	-44.8	0.0	37.7	0.0	-7.0
6720	537445.18	4815894.66	0.50	0	E	-4.3	13.0	0.0	0.0	0.0	-44.8	0.0	37.7	0.0	-73.8
6722	537455.69	4815886.53	0.50	0	D	67.0	8.1	0.0	0.0	0.0	-45.1	0.0	37.7	0.0	-7.6
6722	537455.69	4815886.53	0.50	0	N	62.5	8.1	0.0	0.0	0.0	-45.1	0.0	37.7	0.0	-12.2
6722	537455.69	4815886.53	0.50	0	E	-4.3	8.1	0.0	0.0	0.0	-45.1	0.0	37.7	0.0	-78.9
6724	537463.40	4815880.56	0.50	0	D	67.0	11.2	0.0	0.0	0.0	-45.3	0.0	37.7	0.0	-4.8
6724	537463.40	4815880.56	0.50	0	N	62.5	11.2	0.0	0.0	0.0	-45.3	0.0	37.7	0.0	-9.3
6724	537463.40	4815880.56	0.50	0	E	-4.3	11.2	0.0	0.0	0.0	-45.3	0.0	37.7	0.0	-76.1

Road, RLS-90, Name: "Conestogo Parkway South", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
6726	537406.08	4815920.18	0.50	0	D	67.0	13.5	0.0	0.0	0.0	-43.9	0.0	37.9	0.0	-1.2
6726	537406.08	4815920.18	0.50	0	N	62.5	13.5	0.0	0.0	0.0	-43.9	0.0	37.9	0.0	-5.7
6726	537406.08	4815920.18	0.50	0	E	-4.3	13.5	0.0	0.0	0.0	-43.9	0.0	37.9	0.0	-72.5
6727	537427.97	4815903.24	0.50	0	D	67.0	15.2	0.0	0.0	0.0	-44.4	0.0	37.8	0.0	-0.0
6727	537427.97	4815903.24	0.50	0	N	62.5	15.2	0.0	0.0	0.0	-44.4	0.0	37.8	0.0	-4.6
6727	537427.97	4815903.24	0.50	0	E	-4.3	15.2	0.0	0.0	0.0	-44.4	0.0	37.8	0.0	-71.3
6729	537445.20	4815889.90	0.50	0	D	67.0	10.3	0.0	0.0	0.0	-44.9	0.0	37.7	0.0	-5.3
6729	537445.20	4815889.90	0.50	0	N	62.5	10.3	0.0	0.0	0.0	-44.9	0.0	37.7	0.0	-9.8
6729	537445.20	4815889.90	0.50	0	E	-4.3	10.3	0.0	0.0	0.0	-44.9	0.0	37.7	0.0	-76.6
6731	537455.90	4815881.62	0.50	0	D	67.0	12.1	0.0	0.0	0.0	-45.2	0.0	37.7	0.0	-3.7
6731	537455.90	4815881.62	0.50	0	N	62.5	12.1	0.0	0.0	0.0	-45.2	0.0	37.7	0.0	-8.2
6731	537455.90	4815881.62	0.50	0	E	-4.3	12.1	0.0	0.0	0.0	-45.2	0.0	37.7	0.0	-75.0
6733	537464.31	4815875.11	0.50	0	D	67.0	6.9	0.0	0.0	0.0	-45.4	0.0	37.7	0.0	-9.1
6733	537464.31	4815875.11	0.50	0	N	62.5	6.9	0.0	0.0	0.0	-45.4	0.0	37.7	0.0	-13.6
6733	537464.31	4815875.11	0.50	0	E	-4.3	6.9	0.0	0.0	0.0	-45.4	0.0	37.7	0.0	-80.4
6736	537357.25	4815971.47	0.50	0	D	67.0	16.7	0.0	0.0	0.0	-42.1	0.0	38.1	0.0	3.6
6736	537357.25	4815971.47	0.50	0	N	62.5	16.7	0.0	0.0	0.0	-42.1	0.0	38.1	0.0	-1.0
6736	537357.25	4815971.47	0.50	0	E	-4.3	16.7	0.0	0.0	0.0	-42.1	0.0	38.1	0.0	-67.7
6738	537374.71	4815952.55	0.50	0	D	67.0	6.3	0.0	0.0	0.0	-42.8	0.0	38.0	0.0	-7.4
6738	537374.71	4815952.55	0.50	0	N	62.5	6.3	0.0	0.0	0.0	-42.8	0.0	38.0	0.0	-11.9
6738	537374.71	4815952.55	0.50	0	E	-4.3	6.3	0.0	0.0	0.0	-42.8	0.0	38.0	0.0	-78.7
6742	537355.95	4815967.35	0.50	0	D	67.0	17.1	0.0	0.0	0.0	-42.2	0.0	38.1	0.0	3.9
6742	537355.95	4815967.35	0.50	0	N	62.5	17.1	0.0	0.0	0.0	-42.2	0.0	38.1	0.0	-0.7
6742	537355.95	4815967.35	0.50	0	E	-4.3	17.1	0.0	0.0	0.0	-42.2	0.0	38.1	0.0	-67.4
6916	537584.35	4815807.02	0.50	0	D	67.0	12.0	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-6.2
6916	537584.35	4815807.02	0.50	0	N	62.5	12.0	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-10.7
6916	537584.35	4815807.02	0.50	0	E	-4.3	12.0	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-77.5
6918	537605.93	4815797.27	0.50	0	D	67.0	15.0	0.0	0.0	0.0	-48.2	0.0	37.3	0.0	-3.5
6918	537605.93	4815797.27	0.50	0	N	62.5	15.0	0.0	0.0	0.0	-48.2	0.0	37.3	0.0	-8.0
6918	537605.93	4815797.27	0.50	0	E	-4.3	15.0	0.0	0.0	0.0	-48.2	0.0	37.3	0.0	-74.8
6920	537621.18	4815790.37	0.50	0	D	67.0	2.7	0.0	0.0	0.0	-48.5	0.0	37.3	0.0	-16.1
6920	537621.18	4815790.37	0.50	0	N	62.5	2.7	0.0	0.0	0.0	-48.5	0.0	37.3	0.0	-20.6
6920	537621.18	4815790.37	0.50	0	E	-4.3	2.7	0.0	0.0	0.0	-48.5	0.0	37.3	0.0	-87.4
6922	537629.78	4815786.49	0.50	0	D	67.0	12.3	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-6.6
6922	537629.78	4815786.49	0.50	0	N	62.5	12.3	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-11.1
6922	537629.78	4815786.49	0.50	0	E	-4.3	12.3	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-77.9
6924	537639.41	4815782.14	0.50	0	D	67.0	6.1	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-12.9
6924	537639.41	4815782.14	0.50	0	N	62.5	6.1	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-17.4
6924	537639.41	4815782.14	0.50	0	E	-4.3	6.1	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-84.2
6926	537648.76	4815777.91	0.50	0	D	67.0	12.1	0.0	0.0	0.0	-49.0	0.0	37.2	0.0	-7.0
6926	537648.76	4815777.91	0.50	0	N	62.5	12.1	0.0	0.0	0.0	-49.0	0.0	37.2	0.0	-11.5
6926	537648.76	4815777.91	0.50	0	E	-4.3	12.1	0.0	0.0	0.0	-49.0	0.0	37.2	0.0	-78.3
6927	537656.87	4815774.25	0.50	0	D	67.0	1.4	0.0	0.0	0.0	-49.1	0.0	37.2	0.0	-17.9
6927	537656.87	4815774.25	0.50	0	N	62.5	1.4	0.0	0.0	0.0	-49.1	0.0	37.2	0.0	-22.4
6927	537656.87	4815774.25	0.50	0	E	-4.3	1.4	0.0	0.0	0.0	-49.1	0.0	37.2	0.0	-89.2
6928	537660.73	4815772.50	0.50	0	D	67.0	8.5	0.0	0.0	0.0	-49.2	0.0	37.2	0.0	-10.8
6928	537660.73	4815772.50	0.50	0	N	62.5	8.5	0.0	0.0	0.0	-49.2	0.0	37.2	0.0	-15.4
6928	537660.73	4815772.50	0.50	0	E	-4.3	8.5	0.0	0.0	0.0	-49.2	0.0	37.2	0.0	-82.1
6930	537667.41	4815769.48	0.50	0	D	67.0	8.8	0.0	0.0	0.0	-49.3	0.0	37.2	0.0	-10.7
6930	537667.41	4815769.48	0.50	0	N	62.5	8.8	0.0	0.0	0.0	-49.3	0.0	37.2	0.0	-15.2
6930	537667.41	4815769.48	0.50	0	E	-4.3	8.8	0.0	0.0	0.0	-49.3	0.0	37.2	0.0	-82.0
6935	537585.66	4815802.31	0.50	0	D	67.0	13.4	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-4.8
6935	537585.66	4815802.31	0.50	0	N	62.5	13.4	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-9.3
6935	537585.66	4815802.31	0.50	0	E	-4.3	13.4	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-76.1
6937	537606.78	4815792.77	0.50	0	D	67.0	13.9	0.0	0.0	0.0	-48.3	0.0	37.3	0.0	-4.7
6937	537606.78	4815792.77	0.50	0	N	62.5	13.9	0.0	0.0	0.0	-48.3	0.0	37.3	0.0	-9.2
6937	537606.78	4815792.77	0.50	0	E	-4.3	13.9	0.0	0.0	0.0	-48.3	0.0	37.3	0.0	-76.0
6944	537622.21	4815785.79	0.50	0	D	67.0	9.8	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-9.0
6944	537622.21	4815785.79	0.50	0	N	62.5	9.8	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-13.5
6944	537622.21	4815785.79	0.50	0	E	-4.3	9.8	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-80.3
6946	537634.41	4815780.28	0.50	0	D	67.0	12.4	0.0	0.0	0.0	-48.8	0.0	37.3	0.0	-6.6
6946	537634.41	4815780.28	0.50	0	N	62.5	12.4	0.0	0.0	0.0	-48.8	0.0	37.3	0.0	-11.2
6946	537634.41	4815780.28	0.50	0	E	-4.3	12.4	0.0	0.0	0.0	-48.8	0.0	37.3	0.0	-77.9

Road, RLS-90, Name: "Conestogo Parkway South", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
6949	537644.15	4815775.88	0.50	0	D	67.0	6.2	0.0	0.0	0.0	-48.9	0.0	37.2	0.0	-12.9
6949	537644.15	4815775.88	0.50	0	N	62.5	6.2	0.0	0.0	0.0	-48.9	0.0	37.2	0.0	-17.5
6949	537644.15	4815775.88	0.50	0	E	-4.3	6.2	0.0	0.0	0.0	-48.9	0.0	37.2	0.0	-84.2
6952	537649.92	4815773.27	0.50	0	D	67.0	9.3	0.0	0.0	0.0	-49.0	0.0	37.2	0.0	-9.9
6952	537649.92	4815773.27	0.50	0	N	62.5	9.3	0.0	0.0	0.0	-49.0	0.0	37.2	0.0	-14.5
6952	537649.92	4815773.27	0.50	0	E	-4.3	9.3	0.0	0.0	0.0	-49.0	0.0	37.2	0.0	-81.2
6955	537658.12	4815769.56	0.50	0	D	67.0	9.8	0.0	0.0	0.0	-49.2	0.0	37.2	0.0	-9.6
6955	537658.12	4815769.56	0.50	0	N	62.5	9.8	0.0	0.0	0.0	-49.2	0.0	37.2	0.0	-14.1
6955	537658.12	4815769.56	0.50	0	E	-4.3	9.8	0.0	0.0	0.0	-49.2	0.0	37.2	0.0	-80.9
6957	537665.72	4815766.13	0.50	0	D	67.0	8.6	0.0	0.0	0.0	-49.3	0.0	37.2	0.0	-10.9
6957	537665.72	4815766.13	0.50	0	N	62.5	8.6	0.0	0.0	0.0	-49.3	0.0	37.2	0.0	-15.4
6957	537665.72	4815766.13	0.50	0	E	-4.3	8.6	0.0	0.0	0.0	-49.3	0.0	37.2	0.0	-82.2
6959	537669.14	4815764.58	0.50	0	D	67.0	-4.6	0.0	0.0	0.0	-49.4	0.0	37.2	0.0	-24.1
6959	537669.14	4815764.58	0.50	0	N	62.5	-4.6	0.0	0.0	0.0	-49.4	0.0	37.2	0.0	-28.7
6959	537669.14	4815764.58	0.50	0	E	-4.3	-4.6	0.0	0.0	0.0	-49.4	0.0	37.2	0.0	-95.4
7013	537483.00	4815866.92	0.50	0	D	67.0	15.4	0.0	0.0	0.0	-45.7	0.0	37.6	0.0	-0.9
7013	537483.00	4815866.92	0.50	0	N	62.5	15.4	0.0	0.0	0.0	-45.7	0.0	37.6	0.0	-5.4
7013	537483.00	4815866.92	0.50	0	E	-4.3	15.4	0.0	0.0	0.0	-45.7	0.0	37.6	0.0	-72.2
7014	537507.17	4815850.76	0.50	0	D	67.0	13.6	0.0	0.0	0.0	-46.3	0.0	37.6	0.0	-3.2
7014	537507.17	4815850.76	0.50	0	N	62.5	13.6	0.0	0.0	0.0	-46.3	0.0	37.6	0.0	-7.7
7014	537507.17	4815850.76	0.50	0	E	-4.3	13.6	0.0	0.0	0.0	-46.3	0.0	37.6	0.0	-74.5
7017	537518.94	4815842.89	0.50	0	D	67.0	7.1	0.0	0.0	0.0	-46.6	0.0	37.5	0.0	-9.9
7017	537518.94	4815842.89	0.50	0	N	62.5	7.1	0.0	0.0	0.0	-46.6	0.0	37.5	0.0	-14.4
7017	537518.94	4815842.89	0.50	0	E	-4.3	7.1	0.0	0.0	0.0	-46.6	0.0	37.5	0.0	-81.2
7020	537469.66	4815871.32	0.50	0	D	67.0	9.0	0.0	0.0	0.0	-45.5	0.0	37.7	0.0	-7.1
7020	537469.66	4815871.32	0.50	0	N	62.5	9.0	0.0	0.0	0.0	-45.5	0.0	37.7	0.0	-11.7
7020	537469.66	4815871.32	0.50	0	E	-4.3	9.0	0.0	0.0	0.0	-45.5	0.0	37.7	0.0	-78.4
7022	537487.36	4815859.49	0.50	0	D	67.0	15.4	0.0	0.0	0.0	-45.9	0.0	37.6	0.0	-1.1
7022	537487.36	4815859.49	0.50	0	N	62.5	15.4	0.0	0.0	0.0	-45.9	0.0	37.6	0.0	-5.6
7022	537487.36	4815859.49	0.50	0	E	-4.3	15.4	0.0	0.0	0.0	-45.9	0.0	37.6	0.0	-72.4
7025	537510.38	4815844.11	0.50	0	D	67.0	13.2	0.0	0.0	0.0	-46.4	0.0	37.5	0.0	-3.8
7025	537510.38	4815844.11	0.50	0	N	62.5	13.2	0.0	0.0	0.0	-46.4	0.0	37.5	0.0	-8.3
7025	537510.38	4815844.11	0.50	0	E	-4.3	13.2	0.0	0.0	0.0	-46.4	0.0	37.5	0.0	-75.1
7029	537387.82	4815940.51	0.50	0	D	67.0	15.0	0.0	0.0	0.0	-43.2	0.0	37.9	0.0	0.9
7029	537387.82	4815940.51	0.50	0	N	62.5	15.0	0.0	0.0	0.0	-43.2	0.0	37.9	0.0	-3.6
7029	537387.82	4815940.51	0.50	0	E	-4.3	15.0	0.0	0.0	0.0	-43.2	0.0	37.9	0.0	-70.4
7032	537375.05	4815946.95	0.50	0	D	67.0	6.1	0.0	0.0	0.0	-42.9	0.0	38.0	0.0	-7.8
7032	537375.05	4815946.95	0.50	0	N	62.5	6.1	0.0	0.0	0.0	-42.9	0.0	38.0	0.0	-12.3
7032	537375.05	4815946.95	0.50	0	E	-4.3	6.1	0.0	0.0	0.0	-42.9	0.0	38.0	0.0	-79.1
7033	537386.82	4815936.37	0.50	0	D	67.0	14.4	0.0	0.0	0.0	-43.3	0.0	37.9	0.0	0.2
7033	537386.82	4815936.37	0.50	0	N	62.5	14.4	0.0	0.0	0.0	-43.3	0.0	37.9	0.0	-4.3
7033	537386.82	4815936.37	0.50	0	E	-4.3	14.4	0.0	0.0	0.0	-43.3	0.0	37.9	0.0	-71.1
7034	537525.86	4815838.81	0.50	0	D	67.0	10.5	0.0	0.0	0.0	-46.7	0.0	37.5	0.0	-6.7
7034	537525.86	4815838.81	0.50	0	N	62.5	10.5	0.0	0.0	0.0	-46.7	0.0	37.5	0.0	-11.2
7034	537525.86	4815838.81	0.50	0	E	-4.3	10.5	0.0	0.0	0.0	-46.7	0.0	37.5	0.0	-78.0
7036	537536.98	4815832.63	0.50	0	D	67.0	11.5	0.0	0.0	0.0	-46.9	0.0	37.5	0.0	-5.8
7036	537536.98	4815832.63	0.50	0	N	62.5	11.5	0.0	0.0	0.0	-46.9	0.0	37.5	0.0	-10.4
7036	537536.98	4815832.63	0.50	0	E	-4.3	11.5	0.0	0.0	0.0	-46.9	0.0	37.5	0.0	-77.1
7038	537560.26	4815819.68	0.50	0	D	67.0	15.9	0.0	0.0	0.0	-47.4	0.0	37.4	0.0	-1.9
7038	537560.26	4815819.68	0.50	0	N	62.5	15.9	0.0	0.0	0.0	-47.4	0.0	37.4	0.0	-6.4
7038	537560.26	4815819.68	0.50	0	E	-4.3	15.9	0.0	0.0	0.0	-47.4	0.0	37.4	0.0	-73.2
7061	537520.11	4815837.72	0.50	0	D	67.0	3.4	0.0	0.0	0.0	-46.7	0.0	37.5	0.0	-13.7
7061	537520.11	4815837.72	0.50	0	N	62.5	3.4	0.0	0.0	0.0	-46.7	0.0	37.5	0.0	-18.2
7061	537520.11	4815837.72	0.50	0	E	-4.3	3.4	0.0	0.0	0.0	-46.7	0.0	37.5	0.0	-85.0
7063	537527.92	4815833.37	0.50	0	D	67.0	12.0	0.0	0.0	0.0	-46.8	0.0	37.5	0.0	-5.3
7063	537527.92	4815833.37	0.50	0	N	62.5	12.0	0.0	0.0	0.0	-46.8	0.0	37.5	0.0	-9.8
7063	537527.92	4815833.37	0.50	0	E	-4.3	12.0	0.0	0.0	0.0	-46.8	0.0	37.5	0.0	-76.6
7065	537541.10	4815826.05	0.50	0	D	67.0	11.6	0.0	0.0	0.0	-47.1	0.0	37.5	0.0	-5.9
7065	537541.10	4815826.05	0.50	0	N	62.5	11.6	0.0	0.0	0.0	-47.1	0.0	37.5	0.0	-10.4
7065	537541.10	4815826.05	0.50	0	E	-4.3	11.6	0.0	0.0	0.0	-47.1	0.0	37.5	0.0	-77.2
7068	537561.45	4815814.73	0.50	0	D	67.0	15.1	0.0	0.0	0.0	-47.5	0.0	37.4	0.0	-2.8
7068	537561.45	4815814.73	0.50	0	N	62.5	15.1	0.0	0.0	0.0	-47.5	0.0	37.4	0.0	-7.3
7068	537561.45	4815814.73	0.50	0	E	-4.3	15.1	0.0	0.0	0.0	-47.5	0.0	37.4	0.0	-74.1

Road, RLS-90, Name: "Conestogo Parkway South", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
7118	537679.30	4815765.20	0.50	0	D	67.0	12.6	0.0	0.0	0.0	-49.5	0.0	37.2	0.0	-7.0
7118	537679.30	4815765.20	0.50	0	N	62.5	12.6	0.0	0.0	0.0	-49.5	0.0	37.2	0.0	-11.5
7118	537679.30	4815765.20	0.50	0	E	-4.3	12.6	0.0	0.0	0.0	-49.5	0.0	37.2	0.0	-78.3
7119	537691.02	4815761.40	0.50	0	D	67.0	8.1	0.0	0.0	0.0	-49.6	0.0	37.1	0.0	-11.6
7119	537691.02	4815761.40	0.50	0	N	62.5	8.1	0.0	0.0	0.0	-49.6	0.0	37.1	0.0	-16.2
7119	537691.02	4815761.40	0.50	0	E	-4.3	8.1	0.0	0.0	0.0	-49.6	0.0	37.1	0.0	-82.9
7122	537704.27	4815757.10	0.50	0	D	67.0	13.3	0.0	0.0	0.0	-49.8	0.0	37.1	0.0	-6.6
7122	537704.27	4815757.10	0.50	0	N	62.5	13.3	0.0	0.0	0.0	-49.8	0.0	37.1	0.0	-11.1
7122	537704.27	4815757.10	0.50	0	E	-4.3	13.3	0.0	0.0	0.0	-49.8	0.0	37.1	0.0	-77.9
7123	537717.22	4815752.90	0.50	0	D	67.0	7.7	0.0	0.0	0.0	-50.0	0.0	37.1	0.0	-12.4
7123	537717.22	4815752.90	0.50	0	N	62.5	7.7	0.0	0.0	0.0	-50.0	0.0	37.1	0.0	-17.0
7123	537717.22	4815752.90	0.50	0	E	-4.3	7.7	0.0	0.0	0.0	-50.0	0.0	37.1	0.0	-83.7
7132	537680.91	4815760.73	0.50	0	D	67.0	13.8	0.0	0.0	0.0	-49.5	0.0	37.2	0.0	-5.9
7132	537680.91	4815760.73	0.50	0	N	62.5	13.8	0.0	0.0	0.0	-49.5	0.0	37.2	0.0	-10.4
7132	537680.91	4815760.73	0.50	0	E	-4.3	13.8	0.0	0.0	0.0	-49.5	0.0	37.2	0.0	-77.2
7133	537695.43	4815756.02	0.50	0	D	67.0	8.1	0.0	0.0	0.0	-49.8	0.0	37.1	0.0	-11.7
7133	537695.43	4815756.02	0.50	0	N	62.5	8.1	0.0	0.0	0.0	-49.8	0.0	37.1	0.0	-16.2
7133	537695.43	4815756.02	0.50	0	E	-4.3	8.1	0.0	0.0	0.0	-49.8	0.0	37.1	0.0	-83.0
7135	537708.68	4815751.73	0.50	0	D	67.0	13.3	0.0	0.0	0.0	-50.0	0.0	37.1	0.0	-6.7
7135	537708.68	4815751.73	0.50	0	N	62.5	13.3	0.0	0.0	0.0	-50.0	0.0	37.1	0.0	-11.3
7135	537708.68	4815751.73	0.50	0	E	-4.3	13.3	0.0	0.0	0.0	-50.0	0.0	37.1	0.0	-78.0
7138	537725.76	4815750.43	0.50	0	D	67.0	10.8	0.0	0.0	0.0	-50.2	0.0	37.1	0.0	-9.4
7138	537725.76	4815750.43	0.50	0	N	62.5	10.8	0.0	0.0	0.0	-50.2	0.0	37.1	0.0	-13.9
7138	537725.76	4815750.43	0.50	0	E	-4.3	10.8	0.0	0.0	0.0	-50.2	0.0	37.1	0.0	-80.7
7141	537732.81	4815748.50	0.50	0	D	67.0	4.0	0.0	0.0	0.0	-50.3	0.0	37.1	0.0	-16.3
7141	537732.81	4815748.50	0.50	0	N	62.5	4.0	0.0	0.0	0.0	-50.3	0.0	37.1	0.0	-20.8
7141	537732.81	4815748.50	0.50	0	E	-4.3	4.0	0.0	0.0	0.0	-50.3	0.0	37.1	0.0	-87.6
7143	537747.60	4815744.46	0.50	0	D	67.0	14.5	0.0	0.0	0.0	-50.5	0.0	37.0	0.0	-6.0
7143	537747.60	4815744.46	0.50	0	N	62.5	14.5	0.0	0.0	0.0	-50.5	0.0	37.0	0.0	-10.5
7143	537747.60	4815744.46	0.50	0	E	-4.3	14.5	0.0	0.0	0.0	-50.5	0.0	37.0	0.0	-77.3
7145	537763.22	4815740.19	0.50	0	D	67.0	6.3	0.0	0.0	0.0	-50.7	0.0	37.0	0.0	-14.4
7145	537763.22	4815740.19	0.50	0	N	62.5	6.3	0.0	0.0	0.0	-50.7	0.0	37.0	0.0	-18.9
7145	537763.22	4815740.19	0.50	0	E	-4.3	6.3	0.0	0.0	0.0	-50.7	0.0	37.0	0.0	-85.7
7150	537727.49	4815746.07	0.50	0	D	67.0	12.5	0.0	0.0	0.0	-50.2	0.0	37.1	0.0	-7.8
7150	537727.49	4815746.07	0.50	0	N	62.5	12.5	0.0	0.0	0.0	-50.2	0.0	37.1	0.0	-12.3
7150	537727.49	4815746.07	0.50	0	E	-4.3	12.5	0.0	0.0	0.0	-50.2	0.0	37.1	0.0	-79.1
7153	537737.29	4815743.39	0.50	0	D	67.0	4.0	0.0	0.0	0.0	-50.4	0.0	37.1	0.0	-16.4
7153	537737.29	4815743.39	0.50	0	N	62.5	4.0	0.0	0.0	0.0	-50.4	0.0	37.1	0.0	-20.9
7153	537737.29	4815743.39	0.50	0	E	-4.3	4.0	0.0	0.0	0.0	-50.4	0.0	37.1	0.0	-87.7
7154	537751.39	4815739.54	0.50	0	D	67.0	14.3	0.0	0.0	0.0	-50.6	0.0	37.0	0.0	-6.3
7154	537751.39	4815739.54	0.50	0	N	62.5	14.3	0.0	0.0	0.0	-50.6	0.0	37.0	0.0	-10.8
7154	537751.39	4815739.54	0.50	0	E	-4.3	14.3	0.0	0.0	0.0	-50.6	0.0	37.0	0.0	-77.6

Road, RLS-90, Name: "Conestogo Road", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
6059	537370.98	4816474.70	0.50	0	D	54.5	18.5	0.0	0.0	0.0	-36.4	-0.9	0.0	0.0	35.7
6059	537370.98	4816474.70	0.50	0	N	48.0	18.5	0.0	0.0	0.0	-36.4	-0.9	0.0	0.0	29.2
6059	537370.98	4816474.70	0.50	0	E	-9.6	18.5	0.0	0.0	0.0	-36.4	-0.9	0.0	0.0	-28.4
6061	537388.49	4816439.92	0.50	0	D	54.5	9.0	0.0	0.0	0.0	-35.9	0.0	20.1	0.0	7.5
6061	537388.49	4816439.92	0.50	0	N	48.0	9.0	0.0	0.0	0.0	-35.9	0.0	20.1	0.0	0.9
6061	537388.49	4816439.92	0.50	0	E	-9.6	9.0	0.0	0.0	0.0	-35.9	0.0	20.1	0.0	-56.7
6063	537392.59	4816431.76	0.50	0	D	54.5	10.2	0.0	0.0	0.0	-35.8	0.0	23.5	0.0	5.3
6063	537392.59	4816431.76	0.50	0	N	48.0	10.2	0.0	0.0	0.0	-35.8	0.0	23.5	0.0	-1.2
6063	537392.59	4816431.76	0.50	0	E	-9.6	10.2	0.0	0.0	0.0	-35.8	0.0	23.5	0.0	-58.8
6064	537395.96	4816425.06	0.50	0	D	54.5	6.6	0.0	0.0	0.0	-35.8	0.0	23.6	0.0	1.8
6064	537395.96	4816425.06	0.50	0	N	48.0	6.6	0.0	0.0	0.0	-35.8	0.0	23.6	0.0	-4.8
6064	537395.96	4816425.06	0.50	0	E	-9.6	6.6	0.0	0.0	0.0	-35.8	0.0	23.6	0.0	-62.3
6067	537397.40	4816422.22	0.50	0	D	54.5	2.5	0.0	0.0	0.0	-35.8	0.0	34.2	0.0	-13.0
6067	537397.40	4816422.22	0.50	0	N	48.0	2.5	0.0	0.0	0.0	-35.8	0.0	34.2	0.0	-19.5
6067	537397.40	4816422.22	0.50	0	E	-9.6	2.5	0.0	0.0	0.0	-35.8	0.0	34.2	0.0	-77.1
6069	537398.05	4816420.92	0.50	0	D	54.5	0.5	0.0	0.0	0.0	-35.8	0.0	35.3	0.0	-16.1
6069	537398.05	4816420.92	0.50	0	N	48.0	0.5	0.0	0.0	0.0	-35.8	0.0	35.3	0.0	-22.6

Road, RLS-90, Name: "Conestogo Road", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
6069	537398.05	4816420.92	0.50	0	E	-9.6	0.5	0.0	0.0	0.0	-35.8	0.0	35.3	0.0	-80.2
6071	537400.38	4816416.29	0.50	0	D	54.5	9.7	0.0	0.0	0.0	-35.8	0.0	35.5	0.0	-7.1
6071	537400.38	4816416.29	0.50	0	N	48.0	9.7	0.0	0.0	0.0	-35.8	0.0	35.5	0.0	-13.6
6071	537400.38	4816416.29	0.50	0	E	-9.6	9.7	0.0	0.0	0.0	-35.8	0.0	35.5	0.0	-71.2
6077	537402.72	4816411.63	0.50	0	D	54.5	0.8	0.0	0.0	0.0	-35.8	0.0	39.4	0.0	-19.8
6077	537402.72	4816411.63	0.50	0	N	48.0	0.8	0.0	0.0	0.0	-35.8	0.0	39.4	0.0	-26.4
6077	537402.72	4816411.63	0.50	0	E	-9.6	0.8	0.0	0.0	0.0	-35.8	0.0	39.4	0.0	-84.0
6080	537403.37	4816410.34	0.50	0	D	54.5	2.3	0.0	0.0	0.0	-35.8	0.0	39.5	0.0	-18.5
6080	537403.37	4816410.34	0.50	0	N	48.0	2.3	0.0	0.0	0.0	-35.8	0.0	39.5	0.0	-25.0
6080	537403.37	4816410.34	0.50	0	E	-9.6	2.3	0.0	0.0	0.0	-35.8	0.0	39.5	0.0	-82.6
6082	537406.85	4816403.44	0.50	0	D	54.5	11.4	0.0	0.0	0.0	-35.8	0.0	39.7	0.0	-9.6
6082	537406.85	4816403.44	0.50	0	N	48.0	11.4	0.0	0.0	0.0	-35.8	0.0	39.7	0.0	-16.1
6082	537406.85	4816403.44	0.50	0	E	-9.6	11.4	0.0	0.0	0.0	-35.8	0.0	39.7	0.0	-73.7
6084	537413.54	4816390.13	0.50	0	D	54.5	12.0	0.0	0.0	0.0	-35.8	0.0	39.6	0.0	-8.9
6084	537413.54	4816390.13	0.50	0	N	48.0	12.0	0.0	0.0	0.0	-35.8	0.0	39.6	0.0	-15.4
6084	537413.54	4816390.13	0.50	0	E	-9.6	12.0	0.0	0.0	0.0	-35.8	0.0	39.6	0.0	-73.0
6085	537424.64	4816368.07	0.50	0	D	54.5	15.2	0.0	0.0	0.0	-36.0	0.0	38.9	0.0	-5.2
6085	537424.64	4816368.07	0.50	0	N	48.0	15.2	0.0	0.0	0.0	-36.0	0.0	38.9	0.0	-11.7
6085	537424.64	4816368.07	0.50	0	E	-9.6	15.2	0.0	0.0	0.0	-36.0	0.0	38.9	0.0	-69.3
6087	537435.94	4816345.61	0.50	0	D	54.5	12.3	0.0	0.0	0.0	-36.3	0.0	38.8	0.0	-8.3
6087	537435.94	4816345.61	0.50	0	N	48.0	12.3	0.0	0.0	0.0	-36.3	0.0	38.8	0.0	-14.9
6087	537435.94	4816345.61	0.50	0	E	-9.6	12.3	0.0	0.0	0.0	-36.3	0.0	38.8	0.0	-72.5
6089	537441.02	4816335.52	0.50	0	D	54.5	7.6	0.0	0.0	0.0	-36.5	0.0	38.8	0.0	-13.2
6089	537441.02	4816335.52	0.50	0	N	48.0	7.6	0.0	0.0	0.0	-36.5	0.0	38.8	0.0	-19.7
6089	537441.02	4816335.52	0.50	0	E	-9.6	7.6	0.0	0.0	0.0	-36.5	0.0	38.8	0.0	-77.3
6091	537442.67	4816332.25	0.50	0	D	54.5	2.1	0.0	0.0	0.0	-36.6	0.0	39.6	0.0	-19.5
6091	537442.67	4816332.25	0.50	0	N	48.0	2.1	0.0	0.0	0.0	-36.6	0.0	39.6	0.0	-26.1
6091	537442.67	4816332.25	0.50	0	E	-9.6	2.1	0.0	0.0	0.0	-36.6	0.0	39.6	0.0	-83.7
6092	537445.11	4816327.41	0.50	0	D	54.5	9.7	0.0	0.0	0.0	-36.7	0.0	39.6	0.0	-12.1
6092	537445.11	4816327.41	0.50	0	N	48.0	9.7	0.0	0.0	0.0	-36.7	0.0	39.6	0.0	-18.6
6092	537445.11	4816327.41	0.50	0	E	-9.6	9.7	0.0	0.0	0.0	-36.7	0.0	39.6	0.0	-76.2
6094	537449.40	4816318.86	0.50	0	D	54.5	10.0	0.0	0.0	0.0	-36.9	0.0	39.6	0.0	-12.0
6094	537449.40	4816318.86	0.50	0	N	48.0	10.0	0.0	0.0	0.0	-36.9	0.0	39.6	0.0	-18.5
6094	537449.40	4816318.86	0.50	0	E	-9.6	10.0	0.0	0.0	0.0	-36.9	0.0	39.6	0.0	-76.1
6096	537456.79	4816304.19	0.50	0	D	54.5	13.6	0.0	0.0	0.0	-37.2	0.0	39.6	0.0	-8.7
6096	537456.79	4816304.19	0.50	0	N	48.0	13.6	0.0	0.0	0.0	-37.2	0.0	39.6	0.0	-15.2
6096	537456.79	4816304.19	0.50	0	E	-9.6	13.6	0.0	0.0	0.0	-37.2	0.0	39.6	0.0	-72.8
6098	537462.60	4816292.64	0.50	0	D	54.5	4.6	0.0	0.0	0.0	-37.5	0.0	39.2	0.0	-17.6
6098	537462.60	4816292.64	0.50	0	N	48.0	4.6	0.0	0.0	0.0	-37.5	0.0	39.2	0.0	-24.1
6098	537462.60	4816292.64	0.50	0	E	-9.6	4.6	0.0	0.0	0.0	-37.5	0.0	39.2	0.0	-81.7
6100	537465.38	4816287.11	0.50	0	D	54.5	9.8	0.0	0.0	0.0	-37.6	0.0	39.1	0.0	-12.4
6100	537465.38	4816287.11	0.50	0	N	48.0	9.8	0.0	0.0	0.0	-37.6	0.0	39.1	0.0	-19.0
6100	537465.38	4816287.11	0.50	0	E	-9.6	9.8	0.0	0.0	0.0	-37.6	0.0	39.1	0.0	-76.5
6102	537468.75	4816280.43	0.50	0	D	54.5	7.4	0.0	0.0	0.0	-37.8	0.0	38.9	0.0	-14.8
6102	537468.75	4816280.43	0.50	0	N	48.0	7.4	0.0	0.0	0.0	-37.8	0.0	38.9	0.0	-21.3
6102	537468.75	4816280.43	0.50	0	E	-9.6	7.4	0.0	0.0	0.0	-37.8	0.0	38.9	0.0	-78.9
6104	537470.26	4816277.41	0.50	0	D	54.5	1.1	0.0	0.0	0.0	-37.9	0.0	38.8	0.0	-21.1
6104	537470.26	4816277.41	0.50	0	N	48.0	1.1	0.0	0.0	0.0	-37.9	0.0	38.8	0.0	-27.6
6104	537470.26	4816277.41	0.50	0	E	-9.6	1.1	0.0	0.0	0.0	-37.9	0.0	38.8	0.0	-85.2
6106	537471.11	4816275.74	0.50	0	D	54.5	3.9	0.0	0.0	0.0	-37.9	0.0	38.6	0.0	-18.1
6106	537471.11	4816275.74	0.50	0	N	48.0	3.9	0.0	0.0	0.0	-37.9	0.0	38.6	0.0	-24.6
6106	537471.11	4816275.74	0.50	0	E	-9.6	3.9	0.0	0.0	0.0	-37.9	0.0	38.6	0.0	-82.2
6108	537472.39	4816273.19	0.50	0	D	54.5	5.1	0.0	0.0	0.0	-38.0	0.0	38.6	0.0	-16.9
6108	537472.39	4816273.19	0.50	0	N	48.0	5.1	0.0	0.0	0.0	-38.0	0.0	38.6	0.0	-23.4
6108	537472.39	4816273.19	0.50	0	E	-9.6	5.1	0.0	0.0	0.0	-38.0	0.0	38.6	0.0	-81.0
6110	537473.76	4816270.47	0.50	0	D	54.5	4.5	0.0	0.0	0.0	-38.1	0.0	38.6	0.0	-17.6
6110	537473.76	4816270.47	0.50	0	N	48.0	4.5	0.0	0.0	0.0	-38.1	0.0	38.6	0.0	-24.2
6110	537473.76	4816270.47	0.50	0	E	-9.6	4.5	0.0	0.0	0.0	-38.1	0.0	38.6	0.0	-81.8
6112	537477.52	4816262.99	0.50	0	D	54.5	11.4	0.0	0.0	0.0	-38.3	0.0	38.5	0.0	-10.9
6112	537477.52	4816262.99	0.50	0	N	48.0	11.4	0.0	0.0	0.0	-38.3	0.0	38.5	0.0	-17.4
6112	537477.52	4816262.99	0.50	0	E	-9.6	11.4	0.0	0.0	0.0	-38.3	0.0	38.5	0.0	-75.0
6114	537481.97	4816254.14	0.50	0	D	54.5	7.7	0.0	0.0	0.0	-38.5	0.0	38.5	0.0	-14.8
6114	537481.97	4816254.14	0.50	0	N	48.0	7.7	0.0	0.0	0.0	-38.5	0.0	38.5	0.0	-21.4

Road, RLS-90, Name: "Conestogo Road", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
6114	537481.97	4816254.14	0.50	0	E	-9.6	7.7	0.0	0.0	0.0	-38.5	0.0	38.5	0.0	-78.9
6116	537485.74	4816246.66	0.50	0	D	54.5	10.4	0.0	0.0	0.0	-38.7	0.0	39.4	0.0	-13.2
6116	537485.74	4816246.66	0.50	0	N	48.0	10.4	0.0	0.0	0.0	-38.7	0.0	39.4	0.0	-19.7
6116	537485.74	4816246.66	0.50	0	E	-9.6	10.4	0.0	0.0	0.0	-38.7	0.0	39.4	0.0	-77.3
6118	537490.39	4816237.42	0.50	0	D	54.5	9.9	0.0	0.0	0.0	-39.0	0.0	39.4	0.0	-14.0
6118	537490.39	4816237.42	0.50	0	N	48.0	9.9	0.0	0.0	0.0	-39.0	0.0	39.4	0.0	-20.5
6118	537490.39	4816237.42	0.50	0	E	-9.6	9.9	0.0	0.0	0.0	-39.0	0.0	39.4	0.0	-78.1
6121	537499.28	4816219.75	0.50	0	D	54.5	14.7	0.0	0.0	0.0	-39.5	0.0	39.4	0.0	-9.6
6121	537499.28	4816219.75	0.50	0	N	48.0	14.7	0.0	0.0	0.0	-39.5	0.0	39.4	0.0	-16.2
6121	537499.28	4816219.75	0.50	0	E	-9.6	14.7	0.0	0.0	0.0	-39.5	0.0	39.4	0.0	-73.7
6123	537506.78	4816204.84	0.50	0	D	54.5	5.6	0.0	0.0	0.0	-39.9	0.0	39.0	0.0	-18.8
6123	537506.78	4816204.84	0.50	0	N	48.0	5.6	0.0	0.0	0.0	-39.9	0.0	39.0	0.0	-25.3
6123	537506.78	4816204.84	0.50	0	E	-9.6	5.6	0.0	0.0	0.0	-39.9	0.0	39.0	0.0	-82.9
6125	537508.81	4816200.81	0.50	0	D	54.5	7.3	0.0	0.0	0.0	-40.0	0.0	38.9	0.0	-17.1
6125	537508.81	4816200.81	0.50	0	N	48.0	7.3	0.0	0.0	0.0	-40.0	0.0	38.9	0.0	-23.6
6125	537508.81	4816200.81	0.50	0	E	-9.6	7.3	0.0	0.0	0.0	-40.0	0.0	38.9	0.0	-81.2
6129	537510.27	4816197.91	0.50	0	D	54.5	0.3	0.0	0.0	0.0	-40.1	0.0	38.8	0.0	-24.1
6129	537510.27	4816197.91	0.50	0	N	48.0	0.3	0.0	0.0	0.0	-40.1	0.0	38.8	0.0	-30.6
6129	537510.27	4816197.91	0.50	0	E	-9.6	0.3	0.0	0.0	0.0	-40.1	0.0	38.8	0.0	-88.2
6131	537511.28	4816195.90	0.50	0	D	54.5	5.3	0.0	0.0	0.0	-40.2	0.0	38.8	0.0	-19.1
6131	537511.28	4816195.90	0.50	0	N	48.0	5.3	0.0	0.0	0.0	-40.2	0.0	38.8	0.0	-25.6
6131	537511.28	4816195.90	0.50	0	E	-9.6	5.3	0.0	0.0	0.0	-40.2	0.0	38.8	0.0	-83.2
6133	537513.82	4816190.85	0.50	0	D	54.5	9.0	0.0	0.0	0.0	-40.3	0.0	38.8	0.0	-15.6
6133	537513.82	4816190.85	0.50	0	N	48.0	9.0	0.0	0.0	0.0	-40.3	0.0	38.8	0.0	-22.1
6133	537513.82	4816190.85	0.50	0	E	-9.6	9.0	0.0	0.0	0.0	-40.3	0.0	38.8	0.0	-79.7
6135	537516.81	4816184.91	0.50	0	D	54.5	7.3	0.0	0.0	0.0	-40.5	0.0	38.7	0.0	-17.3
6135	537516.81	4816184.91	0.50	0	N	48.0	7.3	0.0	0.0	0.0	-40.5	0.0	38.7	0.0	-23.8
6135	537516.81	4816184.91	0.50	0	E	-9.6	7.3	0.0	0.0	0.0	-40.5	0.0	38.7	0.0	-81.4
6137	537519.40	4816179.76	0.50	0	D	54.5	7.9	0.0	0.0	0.0	-40.6	0.0	38.6	0.0	-16.9
6137	537519.40	4816179.76	0.50	0	N	48.0	7.9	0.0	0.0	0.0	-40.6	0.0	38.6	0.0	-23.4
6137	537519.40	4816179.76	0.50	0	E	-9.6	7.9	0.0	0.0	0.0	-40.6	0.0	38.6	0.0	-81.0
6138	537521.84	4816174.91	0.50	0	D	54.5	6.8	0.0	0.0	0.0	-40.8	0.0	38.5	0.0	-18.0
6138	537521.84	4816174.91	0.50	0	N	48.0	6.8	0.0	0.0	0.0	-40.8	0.0	38.5	0.0	-24.6
6138	537521.84	4816174.91	0.50	0	E	-9.6	6.8	0.0	0.0	0.0	-40.8	0.0	38.5	0.0	-82.1
6139	537525.12	4816168.40	0.50	0	D	54.5	9.9	0.0	0.0	0.0	-40.9	0.0	38.5	0.0	-15.0
6139	537525.12	4816168.40	0.50	0	N	48.0	9.9	0.0	0.0	0.0	-40.9	0.0	38.5	0.0	-21.5
6139	537525.12	4816168.40	0.50	0	E	-9.6	9.9	0.0	0.0	0.0	-40.9	0.0	38.5	0.0	-79.1
6141	537532.53	4816153.67	0.50	0	D	54.5	13.6	0.0	0.0	0.0	-41.4	0.0	38.5	0.0	-11.7
6141	537532.53	4816153.67	0.50	0	N	48.0	13.6	0.0	0.0	0.0	-41.4	0.0	38.5	0.0	-18.2
6141	537532.53	4816153.67	0.50	0	E	-9.6	13.6	0.0	0.0	0.0	-41.4	0.0	38.5	0.0	-75.8
6143	537544.95	4816128.99	0.50	0	D	54.5	15.1	0.0	0.0	0.0	-42.0	0.0	38.2	0.0	-10.6
6143	537544.95	4816128.99	0.50	0	N	48.0	15.1	0.0	0.0	0.0	-42.0	0.0	38.2	0.0	-17.1
6143	537544.95	4816128.99	0.50	0	E	-9.6	15.1	0.0	0.0	0.0	-42.0	0.0	38.2	0.0	-74.7
6145	537554.28	4816110.45	0.50	0	D	54.5	9.7	0.0	0.0	0.0	-42.5	0.0	38.0	0.0	-16.3
6145	537554.28	4816110.45	0.50	0	N	48.0	9.7	0.0	0.0	0.0	-42.5	0.0	38.0	0.0	-22.8
6145	537554.28	4816110.45	0.50	0	E	-9.6	9.7	0.0	0.0	0.0	-42.5	0.0	38.0	0.0	-80.4
6147	537556.84	4816105.37	0.50	0	D	54.5	3.0	0.0	0.0	0.0	-42.7	0.0	38.0	0.0	-23.2
6147	537556.84	4816105.37	0.50	0	N	48.0	3.0	0.0	0.0	0.0	-42.7	0.0	38.0	0.0	-29.7
6147	537556.84	4816105.37	0.50	0	E	-9.6	3.0	0.0	0.0	0.0	-42.7	0.0	38.0	0.0	-87.3
6148	537559.14	4816100.80	0.50	0	D	54.5	9.2	0.0	0.0	0.0	-42.8	0.0	38.0	0.0	-17.1
6148	537559.14	4816100.80	0.50	0	N	48.0	9.2	0.0	0.0	0.0	-42.8	0.0	38.0	0.0	-23.6
6148	537559.14	4816100.80	0.50	0	E	-9.6	9.2	0.0	0.0	0.0	-42.8	0.0	38.0	0.0	-81.2
6150	537563.73	4816091.68	0.50	0	D	54.5	10.9	0.0	0.0	0.0	-43.0	0.0	38.0	0.0	-15.6
6150	537563.73	4816091.68	0.50	0	N	48.0	10.9	0.0	0.0	0.0	-43.0	0.0	38.0	0.0	-22.1
6150	537563.73	4816091.68	0.50	0	E	-9.6	10.9	0.0	0.0	0.0	-43.0	0.0	38.0	0.0	-79.7
6152	537568.36	4816082.48	0.50	0	D	54.5	9.3	0.0	0.0	0.0	-43.2	0.0	37.9	0.0	-17.4
6152	537568.36	4816082.48	0.50	0	N	48.0	9.3	0.0	0.0	0.0	-43.2	0.0	37.9	0.0	-23.9
6152	537568.36	4816082.48	0.50	0	E	-9.6	9.3	0.0	0.0	0.0	-43.2	0.0	37.9	0.0	-81.5
6155	537574.87	4816069.53	0.50	0	D	54.5	13.1	0.0	0.0	0.0	-43.6	0.0	38.0	0.0	-13.9
6155	537574.87	4816069.53	0.50	0	N	48.0	13.1	0.0	0.0	0.0	-43.6	0.0	38.0	0.0	-20.4
6155	537574.87	4816069.53	0.50	0	E	-9.6	13.1	0.0	0.0	0.0	-43.6	0.0	38.0	0.0	-78.0
6158	537579.91	4816059.53	0.50	0	D	54.5	2.7	0.0	0.0	0.0	-43.8	0.0	37.9	0.0	-24.5
6158	537579.91	4816059.53	0.50	0	N	48.0	2.7	0.0	0.0	0.0	-43.8	0.0	37.9	0.0	-31.1

Road, RLS-90, Name: "Conestogo Road", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
6158	537579.91	4816059.53	0.50	0	E	-9.6	2.7	0.0	0.0	0.0	-43.8	0.0	37.9	0.0	-88.7
6160	537585.45	4816048.51	0.50	0	D	54.5	13.6	0.0	0.0	0.0	-44.1	0.0	37.9	0.0	-13.9
6160	537585.45	4816048.51	0.50	0	N	48.0	13.6	0.0	0.0	0.0	-44.1	0.0	37.9	0.0	-20.4
6160	537585.45	4816048.51	0.50	0	E	-9.6	13.6	0.0	0.0	0.0	-44.1	0.0	37.9	0.0	-78.0
6162	537590.80	4816037.88	0.50	0	D	54.5	0.1	0.0	0.0	0.0	-44.3	0.0	37.9	0.0	-27.6
6162	537590.80	4816037.88	0.50	0	N	48.0	0.1	0.0	0.0	0.0	-44.3	0.0	37.9	0.0	-34.2
6162	537590.80	4816037.88	0.50	0	E	-9.6	0.1	0.0	0.0	0.0	-44.3	0.0	37.9	0.0	-91.7
6164	537598.58	4816022.41	0.50	0	D	54.5	15.3	0.0	0.0	0.0	-44.7	0.0	37.8	0.0	-12.7
6164	537598.58	4816022.41	0.50	0	N	48.0	15.3	0.0	0.0	0.0	-44.7	0.0	37.8	0.0	-19.2
6164	537598.58	4816022.41	0.50	0	E	-9.6	15.3	0.0	0.0	0.0	-44.7	0.0	37.8	0.0	-76.8
6166	537606.61	4816006.46	0.50	0	D	54.5	3.3	0.0	0.0	0.0	-45.1	0.0	37.7	0.0	-25.0
6166	537606.61	4816006.46	0.50	0	N	48.0	3.3	0.0	0.0	0.0	-45.1	0.0	37.7	0.0	-31.5
6166	537606.61	4816006.46	0.50	0	E	-9.6	3.3	0.0	0.0	0.0	-45.1	0.0	37.7	0.0	-89.1
6184	537424.51	4816368.34	0.50	1	D	54.5	4.5	0.0	0.0	0.0	-37.0	0.0	38.8	2.0	-18.8
6184	537424.51	4816368.34	0.50	1	N	48.0	4.5	0.0	0.0	0.0	-37.0	0.0	38.8	2.0	-25.3
6184	537424.51	4816368.34	0.50	1	E	-9.6	4.5	0.0	0.0	0.0	-37.0	0.0	38.8	2.0	-82.9
6187	537428.36	4816360.68	0.50	1	D	54.5	11.6	0.0	0.0	0.0	-36.8	0.0	38.7	2.0	-11.5
6187	537428.36	4816360.68	0.50	1	N	48.0	11.6	0.0	0.0	0.0	-36.8	0.0	38.7	2.0	-18.0
6187	537428.36	4816360.68	0.50	1	E	-9.6	11.6	0.0	0.0	0.0	-36.8	0.0	38.7	2.0	-75.6
6240	537447.20	4816323.25	0.50	1	D	54.5	7.7	0.0	0.0	0.0	-39.7	0.0	38.4	2.0	-17.8
6240	537447.20	4816323.25	0.50	1	N	48.0	7.7	0.0	0.0	0.0	-39.7	0.0	38.4	2.0	-24.3
6240	537447.20	4816323.25	0.50	1	E	-9.6	7.7	0.0	0.0	0.0	-39.7	0.0	38.4	2.0	-81.9
6243	537452.34	4816313.02	0.50	1	D	54.5	12.3	0.0	0.0	0.0	-39.4	0.0	38.4	2.0	-12.9
6243	537452.34	4816313.02	0.50	1	N	48.0	12.3	0.0	0.0	0.0	-39.4	0.0	38.4	2.0	-19.5
6243	537452.34	4816313.02	0.50	1	E	-9.6	12.3	0.0	0.0	0.0	-39.4	0.0	38.4	2.0	-77.1
6272	537475.06	4816267.89	0.50	1	D	54.5	5.9	0.0	0.0	0.0	-40.9	0.0	38.2	2.0	-20.7
6272	537475.06	4816267.89	0.50	1	N	48.0	5.9	0.0	0.0	0.0	-40.9	0.0	38.2	2.0	-27.2
6272	537475.06	4816267.89	0.50	1	E	-9.6	5.9	0.0	0.0	0.0	-40.9	0.0	38.2	2.0	-84.8
6273	537476.80	4816264.42	0.50	1	D	54.5	5.9	0.0	0.0	0.0	-40.8	0.0	38.2	2.0	-20.7
6273	537476.80	4816264.42	0.50	1	N	48.0	5.9	0.0	0.0	0.0	-40.8	0.0	38.2	2.0	-27.2
6273	537476.80	4816264.42	0.50	1	E	-9.6	5.9	0.0	0.0	0.0	-40.8	0.0	38.2	2.0	-84.8
6275	537477.93	4816262.17	0.50	1	D	54.5	0.7	0.0	0.0	0.0	-40.8	0.0	38.2	2.0	-25.7
6275	537477.93	4816262.17	0.50	1	N	48.0	0.7	0.0	0.0	0.0	-40.8	0.0	38.2	2.0	-32.3
6275	537477.93	4816262.17	0.50	1	E	-9.6	0.7	0.0	0.0	0.0	-40.8	0.0	38.2	2.0	-89.9
6296	537367.81	4816472.67	0.50	0	D	54.5	18.5	0.0	0.0	0.0	-36.2	-0.8	0.0	0.0	36.0
6296	537367.81	4816472.67	0.50	0	N	48.0	18.5	0.0	0.0	0.0	-36.2	-0.8	0.0	0.0	29.5
6296	537367.81	4816472.67	0.50	0	E	-9.6	18.5	0.0	0.0	0.0	-36.2	-0.8	0.0	0.0	-28.1
6298	537385.45	4816437.62	0.50	0	D	54.5	8.9	0.0	0.0	0.0	-35.7	0.0	20.6	0.0	7.1
6298	537385.45	4816437.62	0.50	0	N	48.0	8.9	0.0	0.0	0.0	-35.7	0.0	20.6	0.0	0.6
6298	537385.45	4816437.62	0.50	0	E	-9.6	8.9	0.0	0.0	0.0	-35.7	0.0	20.6	0.0	-57.0
6300	537389.47	4816429.61	0.50	0	D	54.5	10.1	0.0	0.0	0.0	-35.7	0.0	24.0	0.0	5.0
6300	537389.47	4816429.61	0.50	0	N	48.0	10.1	0.0	0.0	0.0	-35.7	0.0	24.0	0.0	-1.6
6300	537389.47	4816429.61	0.50	0	E	-9.6	10.1	0.0	0.0	0.0	-35.7	0.0	24.0	0.0	-59.2
6302	537392.78	4816423.05	0.50	0	D	54.5	6.5	0.0	0.0	0.0	-35.6	0.0	24.0	0.0	1.4
6302	537392.78	4816423.05	0.50	0	N	48.0	6.5	0.0	0.0	0.0	-35.6	0.0	24.0	0.0	-5.1
6302	537392.78	4816423.05	0.50	0	E	-9.6	6.5	0.0	0.0	0.0	-35.6	0.0	24.0	0.0	-62.7
6304	537394.18	4816420.26	0.50	0	D	54.5	2.4	0.0	0.0	0.0	-35.6	0.0	34.5	0.0	-13.1
6304	537394.18	4816420.26	0.50	0	N	48.0	2.4	0.0	0.0	0.0	-35.6	0.0	34.5	0.0	-19.7
6304	537394.18	4816420.26	0.50	0	E	-9.6	2.4	0.0	0.0	0.0	-35.6	0.0	34.5	0.0	-77.2
6308	537396.86	4816414.94	0.50	0	D	54.5	10.1	0.0	0.0	0.0	-35.6	0.0	35.7	0.0	-6.7
6308	537396.86	4816414.94	0.50	0	N	48.0	10.1	0.0	0.0	0.0	-35.6	0.0	35.7	0.0	-13.3
6308	537396.86	4816414.94	0.50	0	E	-9.6	10.1	0.0	0.0	0.0	-35.6	0.0	35.7	0.0	-70.9
6310	537399.41	4816409.87	0.50	0	D	54.5	0.7	0.0	0.0	0.0	-35.6	0.0	39.5	0.0	-19.8
6310	537399.41	4816409.87	0.50	0	N	48.0	0.7	0.0	0.0	0.0	-35.6	0.0	39.5	0.0	-26.4
6310	537399.41	4816409.87	0.50	0	E	-9.6	0.7	0.0	0.0	0.0	-35.6	0.0	39.5	0.0	-84.0
6312	537400.05	4816408.61	0.50	0	D	54.5	2.2	0.0	0.0	0.0	-35.6	0.0	39.6	0.0	-18.5
6312	537400.05	4816408.61	0.50	0	N	48.0	2.2	0.0	0.0	0.0	-35.6	0.0	39.6	0.0	-25.0
6312	537400.05	4816408.61	0.50	0	E	-9.6	2.2	0.0	0.0	0.0	-35.6	0.0	39.6	0.0	-82.6
6313	537403.45	4816401.84	0.50	0	D	54.5	11.3	0.0	0.0	0.0	-35.6	0.0	39.8	0.0	-9.5
6313	537403.45	4816401.84	0.50	0	N	48.0	11.3	0.0	0.0	0.0	-35.6	0.0	39.8	0.0	-16.1
6313	537403.45	4816401.84	0.50	0	E	-9.6	11.3	0.0	0.0	0.0	-35.6	0.0	39.8	0.0	-73.7
6315	537410.01	4816388.80	0.50	0	D	54.5	12.0	0.0	0.0	0.0	-35.6	0.0	39.7	0.0	-8.9
6315	537410.01	4816388.80	0.50	0	N	48.0	12.0	0.0	0.0	0.0	-35.6	0.0	39.7	0.0	-15.4

Road, RLS-90, Name: "Conestogo Road", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
6315	537410.01	4816388.80	0.50	0	E	-9.6	12.0	0.0	0.0	0.0	-35.6	0.0	39.7	0.0	-73.0
6317	537420.90	4816367.16	0.50	0	D	54.5	15.2	0.0	0.0	0.0	-35.8	0.0	39.0	0.0	-5.1
6317	537420.90	4816367.16	0.50	0	N	48.0	15.2	0.0	0.0	0.0	-35.8	0.0	39.0	0.0	-11.7
6317	537420.90	4816367.16	0.50	0	E	-9.6	15.2	0.0	0.0	0.0	-35.8	0.0	39.0	0.0	-69.3
6320	537431.99	4816345.14	0.50	0	D	54.5	12.2	0.0	0.0	0.0	-36.1	0.0	38.8	0.0	-8.3
6320	537431.99	4816345.14	0.50	0	N	48.0	12.2	0.0	0.0	0.0	-36.1	0.0	38.8	0.0	-14.8
6320	537431.99	4816345.14	0.50	0	E	-9.6	12.2	0.0	0.0	0.0	-36.1	0.0	38.8	0.0	-72.4
6322	537436.97	4816335.24	0.50	0	D	54.5	7.5	0.0	0.0	0.0	-36.3	0.0	38.8	0.0	-13.1
6322	537436.97	4816335.24	0.50	0	N	48.0	7.5	0.0	0.0	0.0	-36.3	0.0	38.8	0.0	-19.7
6322	537436.97	4816335.24	0.50	0	E	-9.6	7.5	0.0	0.0	0.0	-36.3	0.0	38.8	0.0	-77.3
6326	537438.96	4816331.28	0.50	0	D	54.5	5.2	0.0	0.0	0.0	-36.4	0.0	39.7	0.0	-16.4
6326	537438.96	4816331.28	0.50	0	N	48.0	5.2	0.0	0.0	0.0	-36.4	0.0	39.7	0.0	-22.9
6326	537438.96	4816331.28	0.50	0	E	-9.6	5.2	0.0	0.0	0.0	-36.4	0.0	39.7	0.0	-80.5
6329	537441.35	4816326.53	0.50	0	D	54.5	8.7	0.0	0.0	0.0	-36.5	0.0	39.7	0.0	-13.0
6329	537441.35	4816326.53	0.50	0	N	48.0	8.7	0.0	0.0	0.0	-36.5	0.0	39.7	0.0	-19.5
6329	537441.35	4816326.53	0.50	0	E	-9.6	8.7	0.0	0.0	0.0	-36.5	0.0	39.7	0.0	-77.1
6333	537445.18	4816318.91	0.50	0	D	54.5	9.9	0.0	0.0	0.0	-36.7	0.0	39.7	0.0	-12.0
6333	537445.18	4816318.91	0.50	0	N	48.0	9.9	0.0	0.0	0.0	-36.7	0.0	39.7	0.0	-18.5
6333	537445.18	4816318.91	0.50	0	E	-9.6	9.9	0.0	0.0	0.0	-36.7	0.0	39.7	0.0	-76.1
6335	537452.43	4816304.51	0.50	0	D	54.5	13.5	0.0	0.0	0.0	-37.0	0.0	39.7	0.0	-8.7
6335	537452.43	4816304.51	0.50	0	N	48.0	13.5	0.0	0.0	0.0	-37.0	0.0	39.7	0.0	-15.2
6335	537452.43	4816304.51	0.50	0	E	-9.6	13.5	0.0	0.0	0.0	-37.0	0.0	39.7	0.0	-72.8
6338	537458.13	4816293.19	0.50	0	D	54.5	4.5	0.0	0.0	0.0	-37.3	0.0	39.3	0.0	-17.6
6338	537458.13	4816293.19	0.50	0	N	48.0	4.5	0.0	0.0	0.0	-37.3	0.0	39.3	0.0	-24.1
6338	537458.13	4816293.19	0.50	0	E	-9.6	4.5	0.0	0.0	0.0	-37.3	0.0	39.3	0.0	-81.7
6341	537460.85	4816287.77	0.50	0	D	54.5	9.7	0.0	0.0	0.0	-37.4	0.0	39.2	0.0	-12.4
6341	537460.85	4816287.77	0.50	0	N	48.0	9.7	0.0	0.0	0.0	-37.4	0.0	39.2	0.0	-18.9
6341	537460.85	4816287.77	0.50	0	E	-9.6	9.7	0.0	0.0	0.0	-37.4	0.0	39.2	0.0	-76.5
6344	537464.44	4816280.65	0.50	0	D	54.5	8.2	0.0	0.0	0.0	-37.6	0.0	38.9	0.0	-13.8
6344	537464.44	4816280.65	0.50	0	N	48.0	8.2	0.0	0.0	0.0	-37.6	0.0	38.9	0.0	-20.4
6344	537464.44	4816280.65	0.50	0	E	-9.6	8.2	0.0	0.0	0.0	-37.6	0.0	38.9	0.0	-78.0
6347	537466.28	4816276.99	0.50	0	D	54.5	2.0	0.0	0.0	0.0	-37.7	0.0	38.6	0.0	-19.9
6347	537466.28	4816276.99	0.50	0	N	48.0	2.0	0.0	0.0	0.0	-37.7	0.0	38.6	0.0	-26.4
6347	537466.28	4816276.99	0.50	0	E	-9.6	2.0	0.0	0.0	0.0	-37.7	0.0	38.6	0.0	-84.0
6349	537468.16	4816273.25	0.50	0	D	54.5	8.3	0.0	0.0	0.0	-37.8	0.0	38.6	0.0	-13.6
6349	537468.16	4816273.25	0.50	0	N	48.0	8.3	0.0	0.0	0.0	-37.8	0.0	38.6	0.0	-20.1
6349	537468.16	4816273.25	0.50	0	E	-9.6	8.3	0.0	0.0	0.0	-37.8	0.0	38.6	0.0	-77.7
6352	537473.50	4816262.64	0.50	0	D	54.5	12.3	0.0	0.0	0.0	-38.1	0.0	38.6	0.0	-9.9
6352	537473.50	4816262.64	0.50	0	N	48.0	12.3	0.0	0.0	0.0	-38.1	0.0	38.6	0.0	-16.4
6352	537473.50	4816262.64	0.50	0	E	-9.6	12.3	0.0	0.0	0.0	-38.1	0.0	38.6	0.0	-74.0
6355	537477.87	4816253.96	0.50	0	D	54.5	3.9	0.0	0.0	0.0	-38.4	0.0	38.5	0.0	-18.5
6355	537477.87	4816253.96	0.50	0	N	48.0	3.9	0.0	0.0	0.0	-38.4	0.0	38.5	0.0	-25.0
6355	537477.87	4816253.96	0.50	0	E	-9.6	3.9	0.0	0.0	0.0	-38.4	0.0	38.5	0.0	-82.6
6358	537480.81	4816248.10	0.50	0	D	54.5	10.3	0.0	0.0	0.0	-38.5	0.0	39.5	0.0	-13.2
6358	537480.81	4816248.10	0.50	0	N	48.0	10.3	0.0	0.0	0.0	-38.5	0.0	39.5	0.0	-19.8
6358	537480.81	4816248.10	0.50	0	E	-9.6	10.3	0.0	0.0	0.0	-38.5	0.0	39.5	0.0	-77.3
6360	537485.38	4816239.04	0.50	0	D	54.5	9.8	0.0	0.0	0.0	-38.8	0.0	39.5	0.0	-14.0
6360	537485.38	4816239.04	0.50	0	N	48.0	9.8	0.0	0.0	0.0	-38.8	0.0	39.5	0.0	-20.5
6360	537485.38	4816239.04	0.50	0	E	-9.6	9.8	0.0	0.0	0.0	-38.8	0.0	39.5	0.0	-78.1
6362	537494.10	4816221.71	0.50	0	D	54.5	14.6	0.0	0.0	0.0	-39.3	0.0	39.5	0.0	-9.6
6362	537494.10	4816221.71	0.50	0	N	48.0	14.6	0.0	0.0	0.0	-39.3	0.0	39.5	0.0	-16.2
6362	537494.10	4816221.71	0.50	0	E	-9.6	14.6	0.0	0.0	0.0	-39.3	0.0	39.5	0.0	-73.8
6364	537502.45	4816205.10	0.50	0	D	54.5	9.0	0.0	0.0	0.0	-39.8	0.0	39.0	0.0	-15.2
6364	537502.45	4816205.10	0.50	0	N	48.0	9.0	0.0	0.0	0.0	-39.8	0.0	39.0	0.0	-21.8
6364	537502.45	4816205.10	0.50	0	E	-9.6	9.0	0.0	0.0	0.0	-39.8	0.0	39.0	0.0	-79.4
6365	537504.68	4816200.67	0.50	0	D	54.5	2.8	0.0	0.0	0.0	-39.9	0.0	38.9	0.0	-21.5
6365	537504.68	4816200.67	0.50	0	N	48.0	2.8	0.0	0.0	0.0	-39.9	0.0	38.9	0.0	-28.0
6365	537504.68	4816200.67	0.50	0	E	-9.6	2.8	0.0	0.0	0.0	-39.9	0.0	38.9	0.0	-85.6
6366	537505.86	4816198.32	0.50	0	D	54.5	5.2	0.0	0.0	0.0	-40.0	0.0	38.9	0.0	-19.1
6366	537505.86	4816198.32	0.50	0	N	48.0	5.2	0.0	0.0	0.0	-40.0	0.0	38.9	0.0	-25.6
6366	537505.86	4816198.32	0.50	0	E	-9.6	5.2	0.0	0.0	0.0	-40.0	0.0	38.9	0.0	-83.2
6367	537508.36	4816193.37	0.50	0	D	54.5	8.9	0.0	0.0	0.0	-40.1	0.0	38.9	0.0	-15.6
6367	537508.36	4816193.37	0.50	0	N	48.0	8.9	0.0	0.0	0.0	-40.1	0.0	38.9	0.0	-22.1

Road, RLS-90, Name: "Conestogo Road", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
6367	537508.36	4816193.37	0.50	0	E	-9.6	8.9	0.0	0.0	0.0	-40.1	0.0	38.9	0.0	-79.7
6368	537511.25	4816187.63	0.50	0	D	54.5	7.1	0.0	0.0	0.0	-40.3	0.0	38.8	0.0	-17.4
6368	537511.25	4816187.63	0.50	0	N	48.0	7.1	0.0	0.0	0.0	-40.3	0.0	38.8	0.0	-24.0
6368	537511.25	4816187.63	0.50	0	E	-9.6	7.1	0.0	0.0	0.0	-40.3	0.0	38.8	0.0	-81.5
6369	537513.79	4816182.57	0.50	0	D	54.5	7.9	0.0	0.0	0.0	-40.4	0.0	38.7	0.0	-16.7
6369	537513.79	4816182.57	0.50	0	N	48.0	7.9	0.0	0.0	0.0	-40.4	0.0	38.7	0.0	-23.3
6369	537513.79	4816182.57	0.50	0	E	-9.6	7.9	0.0	0.0	0.0	-40.4	0.0	38.7	0.0	-80.8
6371	537516.22	4816177.74	0.50	0	D	54.5	6.7	0.0	0.0	0.0	-40.6	0.0	38.6	0.0	-18.0
6371	537516.22	4816177.74	0.50	0	N	48.0	6.7	0.0	0.0	0.0	-40.6	0.0	38.6	0.0	-24.6
6371	537516.22	4816177.74	0.50	0	E	-9.6	6.7	0.0	0.0	0.0	-40.6	0.0	38.6	0.0	-82.1
6373	537519.44	4816171.35	0.50	0	D	54.5	9.9	0.0	0.0	0.0	-40.7	0.0	38.6	0.0	-15.0
6373	537519.44	4816171.35	0.50	0	N	48.0	9.9	0.0	0.0	0.0	-40.7	0.0	38.6	0.0	-21.5
6373	537519.44	4816171.35	0.50	0	E	-9.6	9.9	0.0	0.0	0.0	-40.7	0.0	38.6	0.0	-79.1
6375	537527.99	4816154.35	0.50	0	D	54.5	14.5	0.0	0.0	0.0	-41.2	0.0	38.6	0.0	-10.7
6375	537527.99	4816154.35	0.50	0	N	48.0	14.5	0.0	0.0	0.0	-41.2	0.0	38.6	0.0	-17.3
6375	537527.99	4816154.35	0.50	0	E	-9.6	14.5	0.0	0.0	0.0	-41.2	0.0	38.6	0.0	-74.9
6377	537540.17	4816130.15	0.50	0	D	54.5	14.1	0.0	0.0	0.0	-41.9	0.0	38.2	0.0	-11.5
6377	537540.17	4816130.15	0.50	0	N	48.0	14.1	0.0	0.0	0.0	-41.9	0.0	38.2	0.0	-18.0
6377	537540.17	4816130.15	0.50	0	E	-9.6	14.1	0.0	0.0	0.0	-41.9	0.0	38.2	0.0	-75.6
6378	537548.03	4816114.52	0.50	0	D	54.5	9.6	0.0	0.0	0.0	-42.3	0.0	38.1	0.0	-16.2
6378	537548.03	4816114.52	0.50	0	N	48.0	9.6	0.0	0.0	0.0	-42.3	0.0	38.1	0.0	-22.8
6378	537548.03	4816114.52	0.50	0	E	-9.6	9.6	0.0	0.0	0.0	-42.3	0.0	38.1	0.0	-80.3
6381	537550.54	4816109.54	0.50	0	D	54.5	2.9	0.0	0.0	0.0	-42.4	0.0	38.0	0.0	-23.1
6381	537550.54	4816109.54	0.50	0	N	48.0	2.9	0.0	0.0	0.0	-42.4	0.0	38.0	0.0	-29.6
6381	537550.54	4816109.54	0.50	0	E	-9.6	2.9	0.0	0.0	0.0	-42.4	0.0	38.0	0.0	-87.2
6384	537552.79	4816105.06	0.50	0	D	54.5	9.1	0.0	0.0	0.0	-42.6	0.0	38.0	0.0	-17.0
6384	537552.79	4816105.06	0.50	0	N	48.0	9.1	0.0	0.0	0.0	-42.6	0.0	38.0	0.0	-23.5
6384	537552.79	4816105.06	0.50	0	E	-9.6	9.1	0.0	0.0	0.0	-42.6	0.0	38.0	0.0	-81.1
6388	537557.30	4816096.12	0.50	0	D	54.5	10.8	0.0	0.0	0.0	-42.8	0.0	38.0	0.0	-15.5
6388	537557.30	4816096.12	0.50	0	N	48.0	10.8	0.0	0.0	0.0	-42.8	0.0	38.0	0.0	-22.0
6388	537557.30	4816096.12	0.50	0	E	-9.6	10.8	0.0	0.0	0.0	-42.8	0.0	38.0	0.0	-79.6
6390	537561.84	4816087.09	0.50	0	D	54.5	9.2	0.0	0.0	0.0	-43.0	0.0	38.0	0.0	-17.3
6390	537561.84	4816087.09	0.50	0	N	48.0	9.2	0.0	0.0	0.0	-43.0	0.0	38.0	0.0	-23.8
6390	537561.84	4816087.09	0.50	0	E	-9.6	9.2	0.0	0.0	0.0	-43.0	0.0	38.0	0.0	-81.4
6393	537568.22	4816074.40	0.50	0	D	54.5	13.0	0.0	0.0	0.0	-43.4	0.0	38.1	0.0	-13.9
6393	537568.22	4816074.40	0.50	0	N	48.0	13.0	0.0	0.0	0.0	-43.4	0.0	38.1	0.0	-20.4
6393	537568.22	4816074.40	0.50	0	E	-9.6	13.0	0.0	0.0	0.0	-43.4	0.0	38.1	0.0	-78.0
6397	537574.88	4816061.17	0.50	0	D	54.5	9.8	0.0	0.0	0.0	-43.7	0.0	38.0	0.0	-17.4
6397	537574.88	4816061.17	0.50	0	N	48.0	9.8	0.0	0.0	0.0	-43.7	0.0	38.0	0.0	-23.9
6397	537574.88	4816061.17	0.50	0	E	-9.6	9.8	0.0	0.0	0.0	-43.7	0.0	38.0	0.0	-81.5
6398	537580.32	4816050.37	0.50	0	D	54.5	11.7	0.0	0.0	0.0	-44.0	0.0	38.0	0.0	-15.8
6398	537580.32	4816050.37	0.50	0	N	48.0	11.7	0.0	0.0	0.0	-44.0	0.0	38.0	0.0	-22.3
6398	537580.32	4816050.37	0.50	0	E	-9.6	11.7	0.0	0.0	0.0	-44.0	0.0	38.0	0.0	-79.9
6402	537583.85	4816043.36	0.50	0	D	54.5	0.0	0.0	0.0	0.0	-44.1	0.0	38.0	0.0	-27.6
6402	537583.85	4816043.36	0.50	0	N	48.0	0.0	0.0	0.0	0.0	-44.1	0.0	38.0	0.0	-34.1
6402	537583.85	4816043.36	0.50	0	E	-9.6	0.0	0.0	0.0	0.0	-44.1	0.0	38.0	0.0	-91.7
6403	537591.48	4816028.19	0.50	0	D	54.5	15.2	0.0	0.0	0.0	-44.5	0.0	37.9	0.0	-12.7
6403	537591.48	4816028.19	0.50	0	N	48.0	15.2	0.0	0.0	0.0	-44.5	0.0	37.9	0.0	-19.2
6403	537591.48	4816028.19	0.50	0	E	-9.6	15.2	0.0	0.0	0.0	-44.5	0.0	37.9	0.0	-76.8
6406	537601.31	4816008.65	0.50	0	D	54.5	10.3	0.0	0.0	0.0	-45.0	0.0	37.7	0.0	-17.8
6406	537601.31	4816008.65	0.50	0	N	48.0	10.3	0.0	0.0	0.0	-45.0	0.0	37.7	0.0	-24.4
6406	537601.31	4816008.65	0.50	0	E	-9.6	10.3	0.0	0.0	0.0	-45.0	0.0	37.7	0.0	-82.0
6424	537422.12	4816364.74	0.50	1	D	54.5	4.4	0.0	0.0	0.0	-36.8	0.0	38.9	2.0	-18.7
6424	537422.12	4816364.74	0.50	1	N	48.0	4.4	0.0	0.0	0.0	-36.8	0.0	38.9	2.0	-25.2
6424	537422.12	4816364.74	0.50	1	E	-9.6	4.4	0.0	0.0	0.0	-36.8	0.0	38.9	2.0	-82.8
6425	537425.90	4816357.24	0.50	1	D	54.5	11.5	0.0	0.0	0.0	-36.6	0.0	38.8	2.0	-11.4
6425	537425.90	4816357.24	0.50	1	N	48.0	11.5	0.0	0.0	0.0	-36.6	0.0	38.8	2.0	-17.9
6425	537425.90	4816357.24	0.50	1	E	-9.6	11.5	0.0	0.0	0.0	-36.6	0.0	38.8	2.0	-75.5
6472	537445.82	4816317.65	0.50	1	D	54.5	7.6	0.0	0.0	0.0	-39.5	0.0	38.4	2.0	-17.7
6472	537445.82	4816317.65	0.50	1	N	48.0	7.6	0.0	0.0	0.0	-39.5	0.0	38.4	2.0	-24.2
6472	537445.82	4816317.65	0.50	1	E	-9.6	7.6	0.0	0.0	0.0	-39.5	0.0	38.4	2.0	-81.8
6476	537450.86	4816307.62	0.50	1	D	54.5	12.2	0.0	0.0	0.0	-39.2	0.0	38.4	2.0	-12.9
6476	537450.86	4816307.62	0.50	1	N	48.0	12.2	0.0	0.0	0.0	-39.2	0.0	38.4	2.0	-19.4

Road, RLS-90, Name: "Conestogo Road", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
6476	537450.86	4816307.62	0.50	1	E	-9.6	12.2	0.0	0.0	0.0	-39.2	0.0	38.4	2.0	-77.0
6501	537474.13	4816261.39	0.50	1	D	54.5	5.8	0.0	0.0	0.0	-40.7	0.0	38.2	2.0	-20.6
6501	537474.13	4816261.39	0.50	1	N	48.0	5.8	0.0	0.0	0.0	-40.7	0.0	38.2	2.0	-27.2
6501	537474.13	4816261.39	0.50	1	E	-9.6	5.8	0.0	0.0	0.0	-40.7	0.0	38.2	2.0	-84.7
6504	537475.84	4816257.99	0.50	1	D	54.5	5.8	0.0	0.0	0.0	-40.6	0.0	38.2	2.0	-20.6
6504	537475.84	4816257.99	0.50	1	N	48.0	5.8	0.0	0.0	0.0	-40.6	0.0	38.2	2.0	-27.1
6504	537475.84	4816257.99	0.50	1	E	-9.6	5.8	0.0	0.0	0.0	-40.6	0.0	38.2	2.0	-84.7
6507	537476.95	4816255.78	0.50	1	D	54.5	0.7	0.0	0.0	0.0	-40.6	0.0	38.3	2.0	-25.7
6507	537476.95	4816255.78	0.50	1	N	48.0	0.7	0.0	0.0	0.0	-40.6	0.0	38.3	2.0	-32.2
6507	537476.95	4816255.78	0.50	1	E	-9.6	0.7	0.0	0.0	0.0	-40.6	0.0	38.3	2.0	-89.8
6510	537481.24	4816247.26	0.50	1	D	54.5	7.4	0.0	0.0	0.0	-40.3	0.0	38.6	2.0	-19.0
6510	537481.24	4816247.26	0.50	1	N	48.0	7.4	0.0	0.0	0.0	-40.3	0.0	38.6	2.0	-25.6
6510	537481.24	4816247.26	0.50	1	E	-9.6	7.4	0.0	0.0	0.0	-40.3	0.0	38.6	2.0	-83.2
6514	537484.27	4816241.24	0.50	1	D	54.5	9.0	0.0	0.0	0.0	-40.1	0.0	38.8	2.0	-17.4
6514	537484.27	4816241.24	0.50	1	N	48.0	9.0	0.0	0.0	0.0	-40.1	0.0	38.8	2.0	-23.9
6514	537484.27	4816241.24	0.50	1	E	-9.6	9.0	0.0	0.0	0.0	-40.1	0.0	38.8	2.0	-81.5
7160	537743.76	4815971.61	0.50	0	D	54.5	3.8	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-26.8
7160	537743.76	4815971.61	0.50	0	N	48.0	3.8	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-33.3
7160	537743.76	4815971.61	0.50	0	E	-9.6	3.8	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-90.9
7162	537747.96	4815973.93	0.50	0	D	54.5	8.6	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-22.1
7162	537747.96	4815973.93	0.50	0	N	48.0	8.6	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-28.6
7162	537747.96	4815973.93	0.50	0	E	-9.6	8.6	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-86.2
7164	537751.87	4815976.09	0.50	0	D	54.5	2.5	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-28.2
7164	537751.87	4815976.09	0.50	0	N	48.0	2.5	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-34.7
7164	537751.87	4815976.09	0.50	0	E	-9.6	2.5	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-92.3
7165	537756.46	4815978.62	0.50	0	D	54.5	9.4	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-21.3
7165	537756.46	4815978.62	0.50	0	N	48.0	9.4	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-27.9
7165	537756.46	4815978.62	0.50	0	E	-9.6	9.4	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-85.5
7168	537775.30	4815989.02	0.50	0	D	54.5	15.4	0.0	0.0	0.0	-48.1	0.0	37.3	0.0	-15.5
7168	537775.30	4815989.02	0.50	0	N	48.0	15.4	0.0	0.0	0.0	-48.1	0.0	37.3	0.0	-22.1
7168	537775.30	4815989.02	0.50	0	E	-9.6	15.4	0.0	0.0	0.0	-48.1	0.0	37.3	0.0	-79.7
7171	537800.75	4816003.08	0.50	0	D	54.5	13.8	0.0	0.0	0.0	-48.4	0.0	37.3	0.0	-17.4
7171	537800.75	4816003.08	0.50	0	N	48.0	13.8	0.0	0.0	0.0	-48.4	0.0	37.3	0.0	-23.9
7171	537800.75	4816003.08	0.50	0	E	-9.6	13.8	0.0	0.0	0.0	-48.4	0.0	37.3	0.0	-81.5
7188	537746.41	4815968.79	0.50	0	D	54.5	6.4	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-24.3
7188	537746.41	4815968.79	0.50	0	N	48.0	6.4	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-30.9
7188	537746.41	4815968.79	0.50	0	E	-9.6	6.4	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-88.5
7190	537751.46	4815971.58	0.50	0	D	54.5	8.6	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-22.1
7190	537751.46	4815971.58	0.50	0	N	48.0	8.6	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-28.7
7190	537751.46	4815971.58	0.50	0	E	-9.6	8.6	0.0	0.0	0.0	-47.9	0.0	37.4	0.0	-86.3
7192	537755.40	4815973.75	0.50	0	D	54.5	2.5	0.0	0.0	0.0	-47.9	0.0	37.3	0.0	-28.3
7192	537755.40	4815973.75	0.50	0	N	48.0	2.5	0.0	0.0	0.0	-47.9	0.0	37.3	0.0	-34.8
7192	537755.40	4815973.75	0.50	0	E	-9.6	2.5	0.0	0.0	0.0	-47.9	0.0	37.3	0.0	-92.4
7194	537760.01	4815976.30	0.50	0	D	54.5	9.4	0.0	0.0	0.0	-48.0	0.0	37.3	0.0	-21.4
7194	537760.01	4815976.30	0.50	0	N	48.0	9.4	0.0	0.0	0.0	-48.0	0.0	37.3	0.0	-27.9
7194	537760.01	4815976.30	0.50	0	E	-9.6	9.4	0.0	0.0	0.0	-48.0	0.0	37.3	0.0	-85.5
7197	537778.98	4815986.77	0.50	0	D	54.5	15.4	0.0	0.0	0.0	-48.2	0.0	37.3	0.0	-15.6
7197	537778.98	4815986.77	0.50	0	N	48.0	15.4	0.0	0.0	0.0	-48.2	0.0	37.3	0.0	-22.1
7197	537778.98	4815986.77	0.50	0	E	-9.6	15.4	0.0	0.0	0.0	-48.2	0.0	37.3	0.0	-79.7
7200	537803.55	4816000.34	0.50	0	D	54.5	13.3	0.0	0.0	0.0	-48.4	0.0	37.3	0.0	-17.9
7200	537803.55	4816000.34	0.50	0	N	48.0	13.3	0.0	0.0	0.0	-48.4	0.0	37.3	0.0	-24.4
7200	537803.55	4816000.34	0.50	0	E	-9.6	13.3	0.0	0.0	0.0	-48.4	0.0	37.3	0.0	-82.0
7217	537693.31	4815952.33	0.50	0	D	54.5	7.2	0.0	0.0	0.0	-47.2	0.0	37.4	0.0	-22.9
7217	537693.31	4815952.33	0.50	0	N	48.0	7.2	0.0	0.0	0.0	-47.2	0.0	37.4	0.0	-29.5
7217	537693.31	4815952.33	0.50	0	E	-9.6	7.2	0.0	0.0	0.0	-47.2	0.0	37.4	0.0	-87.1
7219	537696.43	4815953.51	0.50	0	D	54.5	1.6	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-28.6
7219	537696.43	4815953.51	0.50	0	N	48.0	1.6	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-35.1
7219	537696.43	4815953.51	0.50	0	E	-9.6	1.6	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-92.7
7220	537705.30	4815956.87	0.50	0	D	54.5	12.4	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-17.8
7220	537705.30	4815956.87	0.50	0	N	48.0	12.4	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-24.3
7220	537705.30	4815956.87	0.50	0	E	-9.6	12.4	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-81.9
7223	537720.93	4815962.80	0.50	0	D	54.5	12.0	0.0	0.0	0.0	-47.5	0.0	37.4	0.0	-18.4
7223	537720.93	4815962.80	0.50	0	N	48.0	12.0	0.0	0.0	0.0	-47.5	0.0	37.4	0.0	-24.9

Road, RLS-90, Name: "Conestogo Road", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
7223	537720.93	4815962.80	0.50	0	E	-9.6	12.0	0.0	0.0	0.0	-47.5	0.0	37.4	0.0	-82.5
7225	537731.68	4815966.87	0.50	0	D	54.5	8.5	0.0	0.0	0.0	-47.6	0.0	37.4	0.0	-22.0
7225	537731.68	4815966.87	0.50	0	N	48.0	8.5	0.0	0.0	0.0	-47.6	0.0	37.4	0.0	-28.5
7225	537731.68	4815966.87	0.50	0	E	-9.6	8.5	0.0	0.0	0.0	-47.6	0.0	37.4	0.0	-86.1
7226	537738.97	4815969.63	0.50	0	D	54.5	9.3	0.0	0.0	0.0	-47.7	0.0	37.4	0.0	-21.3
7226	537738.97	4815969.63	0.50	0	N	48.0	9.3	0.0	0.0	0.0	-47.7	0.0	37.4	0.0	-27.8
7226	537738.97	4815969.63	0.50	0	E	-9.6	9.3	0.0	0.0	0.0	-47.7	0.0	37.4	0.0	-85.4
7233	537695.68	4815949.22	0.50	0	D	54.5	8.7	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-21.5
7233	537695.68	4815949.22	0.50	0	N	48.0	8.7	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-28.0
7233	537695.68	4815949.22	0.50	0	E	-9.6	8.7	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-85.6
7235	537699.86	4815950.80	0.50	0	D	54.5	1.6	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-28.7
7235	537699.86	4815950.80	0.50	0	N	48.0	1.6	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-35.2
7235	537699.86	4815950.80	0.50	0	E	-9.6	1.6	0.0	0.0	0.0	-47.3	0.0	37.4	0.0	-92.8
7237	537708.79	4815954.18	0.50	0	D	54.5	12.5	0.0	0.0	0.0	-47.4	0.0	37.4	0.0	-17.9
7237	537708.79	4815954.18	0.50	0	N	48.0	12.5	0.0	0.0	0.0	-47.4	0.0	37.4	0.0	-24.4
7237	537708.79	4815954.18	0.50	0	E	-9.6	12.5	0.0	0.0	0.0	-47.4	0.0	37.4	0.0	-82.0
7239	537724.54	4815960.15	0.50	0	D	54.5	12.0	0.0	0.0	0.0	-47.6	0.0	37.4	0.0	-18.4
7239	537724.54	4815960.15	0.50	0	N	48.0	12.0	0.0	0.0	0.0	-47.6	0.0	37.4	0.0	-25.0
7239	537724.54	4815960.15	0.50	0	E	-9.6	12.0	0.0	0.0	0.0	-47.6	0.0	37.4	0.0	-82.6
7242	537735.37	4815964.26	0.50	0	D	54.5	8.5	0.0	0.0	0.0	-47.7	0.0	37.4	0.0	-22.0
7242	537735.37	4815964.26	0.50	0	N	48.0	8.5	0.0	0.0	0.0	-47.7	0.0	37.4	0.0	-28.6
7242	537735.37	4815964.26	0.50	0	E	-9.6	8.5	0.0	0.0	0.0	-47.7	0.0	37.4	0.0	-86.2
7245	537741.49	4815966.58	0.50	0	D	54.5	7.7	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-22.9
7245	537741.49	4815966.58	0.50	0	N	48.0	7.7	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-29.4
7245	537741.49	4815966.58	0.50	0	E	-9.6	7.7	0.0	0.0	0.0	-47.8	0.0	37.4	0.0	-87.0
7256	537615.43	4815991.34	0.50	0	D	54.5	15.2	0.0	0.0	0.0	-45.5	0.0	37.7	0.0	-13.4
7256	537615.43	4815991.34	0.50	0	N	48.0	15.2	0.0	0.0	0.0	-45.5	0.0	37.7	0.0	-19.9
7256	537615.43	4815991.34	0.50	0	E	-9.6	15.2	0.0	0.0	0.0	-45.5	0.0	37.7	0.0	-77.5
7266	537610.27	4815992.71	0.50	0	D	54.5	14.1	0.0	0.0	0.0	-45.4	0.0	37.7	0.0	-14.4
7266	537610.27	4815992.71	0.50	0	N	48.0	14.1	0.0	0.0	0.0	-45.4	0.0	37.7	0.0	-21.0
7266	537610.27	4815992.71	0.50	0	E	-9.6	14.1	0.0	0.0	0.0	-45.4	0.0	37.7	0.0	-78.6
7268	537617.55	4815980.34	0.50	0	D	54.5	5.0	0.0	0.0	0.0	-45.7	0.0	37.6	0.0	-23.8
7268	537617.55	4815980.34	0.50	0	N	48.0	5.0	0.0	0.0	0.0	-45.7	0.0	37.6	0.0	-30.3
7268	537617.55	4815980.34	0.50	0	E	-9.6	5.0	0.0	0.0	0.0	-45.7	0.0	37.6	0.0	-87.9
7271	537619.48	4815977.06	0.50	0	D	54.5	6.5	0.0	0.0	0.0	-45.7	0.0	37.7	0.0	-22.5
7271	537619.48	4815977.06	0.50	0	N	48.0	6.5	0.0	0.0	0.0	-45.7	0.0	37.7	0.0	-29.0
7271	537619.48	4815977.06	0.50	0	E	-9.6	6.5	0.0	0.0	0.0	-45.7	0.0	37.7	0.0	-86.6
7281	537652.14	4815957.67	0.50	0	D	54.5	14.4	0.0	0.0	0.0	-46.5	0.0	37.5	0.0	-15.1
7281	537652.14	4815957.67	0.50	0	N	48.0	14.4	0.0	0.0	0.0	-46.5	0.0	37.5	0.0	-21.6
7281	537652.14	4815957.67	0.50	0	E	-9.6	14.4	0.0	0.0	0.0	-46.5	0.0	37.5	0.0	-79.2
7287	537640.09	4815958.73	0.50	0	D	54.5	6.9	0.0	0.0	0.0	-46.3	0.0	37.6	0.0	-22.5
7287	537640.09	4815958.73	0.50	0	N	48.0	6.9	0.0	0.0	0.0	-46.3	0.0	37.6	0.0	-29.0
7287	537640.09	4815958.73	0.50	0	E	-9.6	6.9	0.0	0.0	0.0	-46.3	0.0	37.6	0.0	-86.6
7288	537643.86	4815957.12	0.50	0	D	54.5	5.2	0.0	0.0	0.0	-46.4	0.0	37.5	0.0	-24.2
7288	537643.86	4815957.12	0.50	0	N	48.0	5.2	0.0	0.0	0.0	-46.4	0.0	37.5	0.0	-30.7
7288	537643.86	4815957.12	0.50	0	E	-9.6	5.2	0.0	0.0	0.0	-46.4	0.0	37.5	0.0	-88.3
7289	537654.44	4815952.61	0.50	0	D	54.5	12.9	0.0	0.0	0.0	-46.6	0.0	37.5	0.0	-16.7
7289	537654.44	4815952.61	0.50	0	N	48.0	12.9	0.0	0.0	0.0	-46.6	0.0	37.5	0.0	-23.2
7289	537654.44	4815952.61	0.50	0	E	-9.6	12.9	0.0	0.0	0.0	-46.6	0.0	37.5	0.0	-80.8
7297	537668.23	4815952.24	0.50	0	D	54.5	9.0	0.0	0.0	0.0	-46.8	0.0	37.5	0.0	-20.8
7297	537668.23	4815952.24	0.50	0	N	48.0	9.0	0.0	0.0	0.0	-46.8	0.0	37.5	0.0	-27.4
7297	537668.23	4815952.24	0.50	0	E	-9.6	9.0	0.0	0.0	0.0	-46.8	0.0	37.5	0.0	-84.9
7299	537681.88	4815951.82	0.50	0	D	54.5	12.9	0.0	0.0	0.0	-47.1	0.0	37.5	0.0	-17.1
7299	537681.88	4815951.82	0.50	0	N	48.0	12.9	0.0	0.0	0.0	-47.1	0.0	37.5	0.0	-23.6
7299	537681.88	4815951.82	0.50	0	E	-9.6	12.9	0.0	0.0	0.0	-47.1	0.0	37.5	0.0	-81.2
7307	537670.50	4815948.41	0.50	0	D	54.5	11.0	0.0	0.0	0.0	-46.9	0.0	37.5	0.0	-18.8
7307	537670.50	4815948.41	0.50	0	N	48.0	11.0	0.0	0.0	0.0	-46.9	0.0	37.5	0.0	-25.4
7307	537670.50	4815948.41	0.50	0	E	-9.6	11.0	0.0	0.0	0.0	-46.9	0.0	37.5	0.0	-83.0
7310	537684.15	4815947.99	0.50	0	D	54.5	11.7	0.0	0.0	0.0	-47.1	0.0	37.5	0.0	-18.4
7310	537684.15	4815947.99	0.50	0	N	48.0	11.7	0.0	0.0	0.0	-47.1	0.0	37.5	0.0	-24.9
7310	537684.15	4815947.99	0.50	0	E	-9.6	11.7	0.0	0.0	0.0	-47.1	0.0	37.5	0.0	-82.5
7317	537625.73	4815975.47	0.50	0	D	54.5	7.8	0.0	0.0	0.0	-45.9	0.0	37.6	0.0	-21.1
7317	537625.73	4815975.47	0.50	0	N	48.0	7.8	0.0	0.0	0.0	-45.9	0.0	37.6	0.0	-27.6

Road, RLS-90, Name: "Conestogo Road", ID: "!00!RD"															
Nr.	X	Y	Z	Refl.	DEN	LmE	Dl	Dstg	Drefl	K	Ds	Dbm	Dz	RL	Lr
	(m)	(m)	(m)			dB(A)	dB	dB	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)
7317	537625.73	4815975.47	0.50	0	E	-9.6	7.8	0.0	0.0	0.0	-45.9	0.0	37.6	0.0	-85.2
7319	537633.92	4815968.12	0.50	0	D	54.5	12.0	0.0	0.0	0.0	-46.1	0.0	37.6	0.0	-17.1
7319	537633.92	4815968.12	0.50	0	N	48.0	12.0	0.0	0.0	0.0	-46.1	0.0	37.6	0.0	-23.7
7319	537633.92	4815968.12	0.50	0	E	-9.6	12.0	0.0	0.0	0.0	-46.1	0.0	37.6	0.0	-81.2
7326	537623.29	4815972.62	0.50	0	D	54.5	8.0	0.0	0.0	0.0	-45.9	0.0	37.7	0.0	-21.1
7326	537623.29	4815972.62	0.50	0	N	48.0	8.0	0.0	0.0	0.0	-45.9	0.0	37.7	0.0	-27.6
7326	537623.29	4815972.62	0.50	0	E	-9.6	8.0	0.0	0.0	0.0	-45.9	0.0	37.7	0.0	-85.2
7327	537631.48	4815965.27	0.50	0	D	54.5	12.0	0.0	0.0	0.0	-46.1	0.0	37.6	0.0	-17.2
7327	537631.48	4815965.27	0.50	0	N	48.0	12.0	0.0	0.0	0.0	-46.1	0.0	37.6	0.0	-23.7
7327	537631.48	4815965.27	0.50	0	E	-9.6	12.0	0.0	0.0	0.0	-46.1	0.0	37.6	0.0	-81.3
7328	537812.92	4816009.93	0.50	0	D	54.5	6.4	0.0	0.0	0.0	-48.5	0.0	37.3	0.0	-24.9
7328	537812.92	4816009.93	0.50	0	N	48.0	6.4	0.0	0.0	0.0	-48.5	0.0	37.3	0.0	-31.4
7328	537812.92	4816009.93	0.50	0	E	-9.6	6.4	0.0	0.0	0.0	-48.5	0.0	37.3	0.0	-89.0
7329	537818.61	4816013.50	0.50	0	D	54.5	9.6	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-21.7
7329	537818.61	4816013.50	0.50	0	N	48.0	9.6	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-28.3
7329	537818.61	4816013.50	0.50	0	E	-9.6	9.6	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-85.8
7330	537823.85	4816016.79	0.50	0	D	54.5	5.1	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-26.2
7330	537823.85	4816016.79	0.50	0	N	48.0	5.1	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-32.8
7330	537823.85	4816016.79	0.50	0	E	-9.6	5.1	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-90.3
7331	537825.76	4816017.98	0.50	0	D	54.5	0.9	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-30.5
7331	537825.76	4816017.98	0.50	0	N	48.0	0.9	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-37.0
7331	537825.76	4816017.98	0.50	0	E	-9.6	0.9	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-94.6
7333	537827.19	4816018.88	0.50	0	D	54.5	3.3	0.0	0.0	0.0	-48.7	0.0	37.3	0.0	-28.1
7333	537827.19	4816018.88	0.50	0	N	48.0	3.3	0.0	0.0	0.0	-48.7	0.0	37.3	0.0	-34.6
7333	537827.19	4816018.88	0.50	0	E	-9.6	3.3	0.0	0.0	0.0	-48.7	0.0	37.3	0.0	-92.2
7334	537830.15	4816020.73	0.50	0	D	54.5	6.8	0.0	0.0	0.0	-48.7	0.0	37.3	0.0	-24.6
7334	537830.15	4816020.73	0.50	0	N	48.0	6.8	0.0	0.0	0.0	-48.7	0.0	37.3	0.0	-31.1
7334	537830.15	4816020.73	0.50	0	E	-9.6	6.8	0.0	0.0	0.0	-48.7	0.0	37.3	0.0	-88.7
7336	537835.00	4816023.78	0.50	0	D	54.5	8.2	0.0	0.0	0.0	-48.7	0.0	37.2	0.0	-23.2
7336	537835.00	4816023.78	0.50	0	N	48.0	8.2	0.0	0.0	0.0	-48.7	0.0	37.2	0.0	-29.8
7336	537835.00	4816023.78	0.50	0	E	-9.6	8.2	0.0	0.0	0.0	-48.7	0.0	37.2	0.0	-87.4
7337	537838.52	4816025.98	0.50	0	D	54.5	2.2	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-29.3
7337	537838.52	4816025.98	0.50	0	N	48.0	2.2	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-35.9
7337	537838.52	4816025.98	0.50	0	E	-9.6	2.2	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-93.5
7493	537815.82	4816007.33	0.50	0	D	54.5	8.1	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-23.2
7493	537815.82	4816007.33	0.50	0	N	48.0	8.1	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-29.7
7493	537815.82	4816007.33	0.50	0	E	-9.6	8.1	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-87.3
7496	537822.46	4816011.49	0.50	0	D	54.5	9.6	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-21.8
7496	537822.46	4816011.49	0.50	0	N	48.0	9.6	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-28.3
7496	537822.46	4816011.49	0.50	0	E	-9.6	9.6	0.0	0.0	0.0	-48.6	0.0	37.3	0.0	-85.9
7498	537827.73	4816014.79	0.50	0	D	54.5	5.2	0.0	0.0	0.0	-48.7	0.0	37.3	0.0	-26.3
7498	537827.73	4816014.79	0.50	0	N	48.0	5.2	0.0	0.0	0.0	-48.7	0.0	37.3	0.0	-32.8
7498	537827.73	4816014.79	0.50	0	E	-9.6	5.2	0.0	0.0	0.0	-48.7	0.0	37.3	0.0	-90.4
7501	537829.65	4816016.00	0.50	0	D	54.5	0.9	0.0	0.0	0.0	-48.7	0.0	37.3	0.0	-30.5
7501	537829.65	4816016.00	0.50	0	N	48.0	0.9	0.0	0.0	0.0	-48.7	0.0	37.3	0.0	-37.0
7501	537829.65	4816016.00	0.50	0	E	-9.6	0.9	0.0	0.0	0.0	-48.7	0.0	37.3	0.0	-94.6
7504	537831.10	4816016.90	0.50	0	D	54.5	3.4	0.0	0.0	0.0	-48.7	0.0	37.2	0.0	-28.1
7504	537831.10	4816016.90	0.50	0	N	48.0	3.4	0.0	0.0	0.0	-48.7	0.0	37.2	0.0	-34.6
7504	537831.10	4816016.90	0.50	0	E	-9.6	3.4	0.0	0.0	0.0	-48.7	0.0	37.2	0.0	-92.2
7506	537834.07	4816018.76	0.50	0	D	54.5	6.9	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-24.6
7506	537834.07	4816018.76	0.50	0	N	48.0	6.9	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-31.2
7506	537834.07	4816018.76	0.50	0	E	-9.6	6.9	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-88.8
7508	537838.67	4816021.65	0.50	0	D	54.5	7.8	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-23.8
7508	537838.67	4816021.65	0.50	0	N	48.0	7.8	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-30.3
7508	537838.67	4816021.65	0.50	0	E	-9.6	7.8	0.0	0.0	0.0	-48.8	0.0	37.2	0.0	-87.9

APPENDIX D

Appendix D Table D-01: D-6 Stationary Source Assessment (Refer to Appendix D – Figure D01)

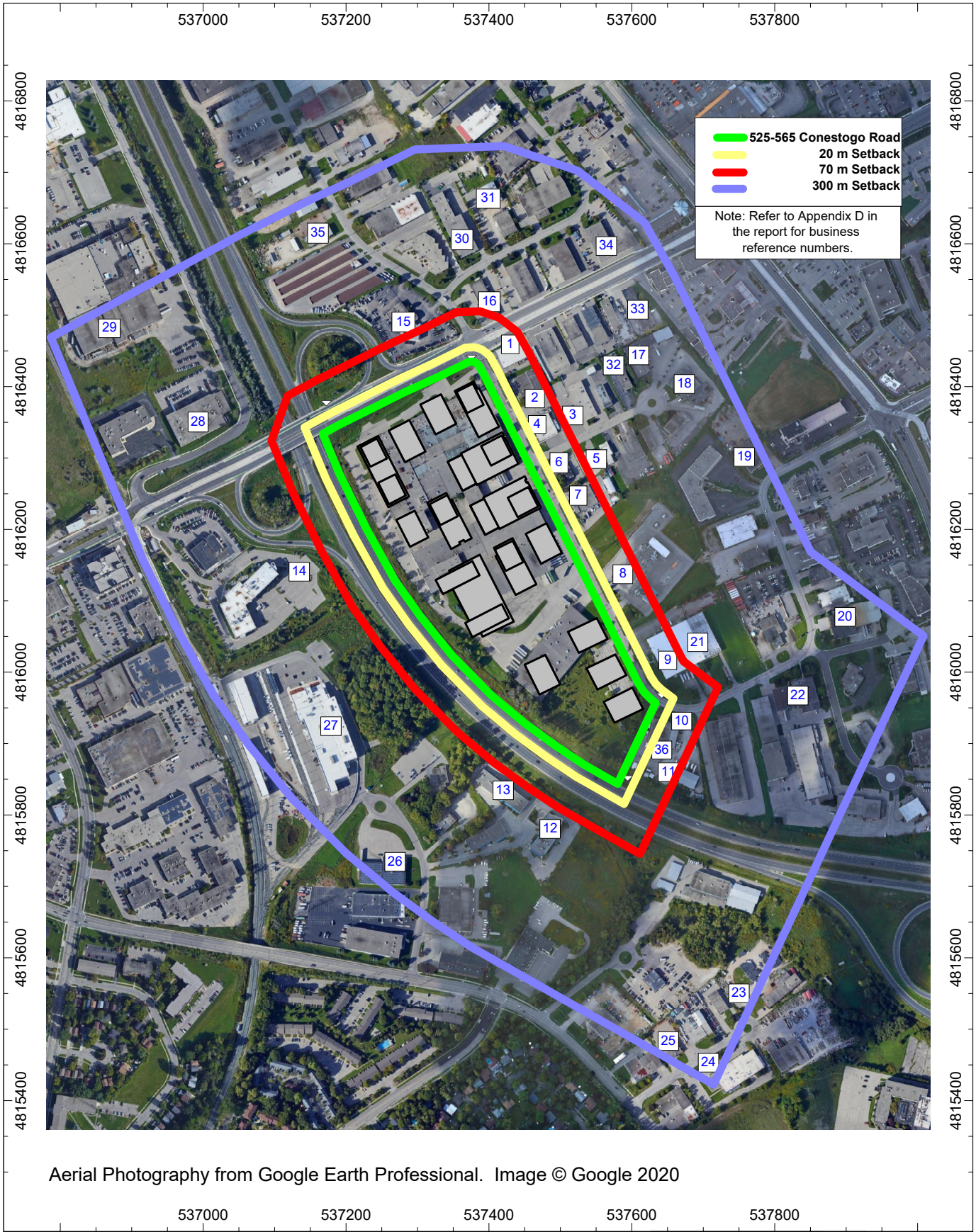
Reference # in Fig. D01	Facility Name	Operating Hours	Operations	Class	ECA #
1	Benson Autoparts	08:00-17:30	Auto parts store	Class I	n/a
2	Swenco Limited	08:00-17:00	Safety equipment supplier	Class I	n/a
3	Grand River Glassworks	11:00-18:00	Stained glass studio	Class I	n/a
4	Baseline Constructors Inc	Not available	General Contractor	n/a	n/a
5	Abelson Siding & Windows	08:30-17:00	Window supplier	Class I	n/a
6	K-W Fuel Injection Ltd	08:00-04:30	Diesel engine repair service	Class I	n/a
7	Academy Construction 1996 Ltd	07:00-17:00	General contractor	n/a	n/a
8	Waterloo North Hydro H.M. Scheifele TS	00:00-24:00	Electrical substation	Class II	n/a
9	Riverside Millwork Group	07:30-17:00	Building materials store	Class I	n/a
10	Day Dreamer Accessories Inc.	10:00-19:00	E-commerce service	Class I	2546-4WUS6T (stormwater management pond)
11	Canada Moving - Wilke Movers Waterloo Branch	08:00-17:00	Mover	Class I	n/a

Reference # in Fig. D01	Facility Name	Operating Hours	Operations	Class	ECA #
12	1) MAC LLP 2) Pollard Gagliardi Navickas LLP	08:30-17:00	Certified public accountants	n/a	n/a
13	A) A Balanced Approach B) Delanghe Chiropractic & Health C) Cowan Wilkin Financial Services Inc	A) 08:30-17:00 B) 10:00-17:00 C) 08:30-16:30	A) Social services organization B) Chiropractor C) Financial planner	n/a	n/a
14	A) OTIP RAEO B) TW Insurance Brokers	08:00-17:00	A) Corporate office B) Insurance agency	n/a	n/a
15	Waterloo Kia	08:00-20:00	Kia dealer	Class I	n/a
16	A) SoCold Restaurant Supply B) Eagle Car Sales Services	A) 09:00-16:30 B) 10:00-17:00	A) Restaurant supply store B) Used car dealer	Class I	n/a
17	Astron Specialty Metals	Not available	Steel fabricator	Class II	n/a
18	Hergott Plastics Ltd	Not available	Plastic injection molding service	Class II	n/a
19	Task Custom Metal Fabricatos	08:00-16:30	Metal manufacturer	Class II	n/a
20	Lubricor - A Subsidiary of	Not available	Chemical manufacturer	Class II	n/a

Reference # in Fig. D01	Facility Name	Operating Hours	Operations	Class	ECA #
	Quaker-Houghton				
21	Prime Metal Service Centre	08:00-17:00	Metal finisher	Class II	n/a
22	Hammond Manufacturing	07:00-15:00	Manufacturer for power distribution, racks and enclosures	Class II	2074-8MMGNF (1 general exhaust fan)
23	Satnam Machine & Tool	Not available	Tool Manufacturer	Class II	n/a
24A	E Craftsmen Corporation	08:00-17:00	Manufacturer of Custom Inductors and Transformers	Class II	3948-B3HRU9 (4 exhaust fans, 1 electrically heated oven, 1 natural gas direct fire makeup air system, 1 spray paint booth, 2 electrically heated ovens, 1 exhaust system, 1 natural gas fired casting oven, 1 sandblasting dust collector system, 3 indirect natural gas fired make up air systems)
24B	Sayers & Associates Limited	Not available	Mechanical Contractor	n/a	
25	KWO Iron Works Ltd	09:00-17:00	Steel Fabricator	Class II	n/a
26	Hammond Manufacturing	07:00-15:30	Manufacturer for power distribution, racks and enclosures	Class II	5565-8D7R4N (1 ventilation system serving 5 soldering stations)

Reference # in Fig. D01	Facility Name	Operating Hours	Operations	Class	ECA #
27	ION LRT Operation Maintenance Storage Facility	Not available	Railroad company Operation Maintenance Storage Facility	Class II	n/a
28	Aeryon	09:00-17:00	Drone Manufacturer	Class II	n/a
29	Onward Manufacturing Company	08:30-20:00	BBQ / Grill Manufacturer	Class II	n/a
30	RJB Machining Ltd	07:00-16:30	Machine Shop (sheet metal fabrication)	Class II	7042-53CS83 (1 spray paint booth, 1 spray paint gun, 1 direct gas fired makeup air unit, paint line, anodizing line x2, boiler)
31	KW Anodizing Ltd.	Not available	Metal Finisher	Class II	n/a
32	CRA Developments (1999) Limited	Not available	Generators are possibly no longer in use – as GHA owns the building now	n/a	6131-4QAR7P / 3430-7S2QRK (2 generators)
33	Gibson's Home Furnishings	10:00-20:00	Home Goods Store	Class II	6105-A9PPA9 (spray paint booth and dust collector)
34	Koebel's Collision Centre Inc. (now called CARSTAR Waterloo)	08:00-20:00	Autobody Shop	Class II	2398-6LUQ3Q (2x spray paint booth, finish workstation, paint mix room)

Reference # in Fig. D01	Facility Name	Operating Hours	Operations	Class	ECA #
35	Ultra Finish	Not available	Autobody shop - sand blasting and rim painting.	Class II	7765-7WDLQ8 (1 natural gas fired Guspro Heat Cleaning Oven, 1 process chamber, 1 thermal oxidizer chamber, 1 maintenance welding station, 3 natural gas fired comfort heaters)
36	515 Conestogo Road	Not available.	Storm Water Management (possibly no longer in use as new owner)	n/a	2546-4WUS6T



Aerial Photography from Google Earth Professional. Image © Google 2020

Stationary Source Assessment

525-565 Conestogo Road - Waterloo, Ontario

True North

Project #2002470

Drawn by: MPP	Figure **D01**
Scale:	1:7500
Date:	April 26, 2021

loads from any other station without significant transmission and distribution investments. Therefore there are little or no significant optimization opportunity is present at this point in time. Option considered for load transfer will require significant new investment; for example:

- The two residential distribution feeders supplying loads north of Hanlon TS could be transferred to existing feeders out of Cedar TS. These load transfers will result in increased line losses and reduced capacity (due to voltage drop)
- Another option could be transferring remaining Hanlon TS load to Arlen MTS. This load transfer will require an additional DESN and underground infrastructure at Arlen MTS.

Hence, the Study Team recommends that Hydro One undertakes replacement of Cedar TS T7/T8 and Hanlon TS T1/T2 transformers with 42 MVA standard size units, being technically and economical most suitable solution. The replacement of EOL equipment is expected to be completed by 2023-2025 timeframe for both stations.

Scheifele MTS – T1/ T2 Transformers

Scheifele MTS is located in the city of Waterloo supplying Waterloo North Hydro Inc. loads. Scheifele MTS has four 230/ 13.8 kV transformers T1 and T2 of 67 MVA, and T3 and T4 of 83 MVA currently supplying 145 MW of peak loads. The load at this station is forecasted to remain almost flat over the entire study period. The total supply capacity of Scheifele MTS is 161 MW expected to be sufficient over the study period.

The T1/T2 transformers based on their age have been identified by Waterloo North Hydro Inc. as approaching end of life potentially requiring replacement in the 2024- 2026 timeframe. Waterloo North Hydro will be monitoring the condition of these transformers to assess their replacement need. At this time none of other HV/LV equipment at this station has been identified as approaching EOL over the next 5-10 years.

The station cannot be downsized or eliminated because there is no nearby supply station/s to Scheifele MTS having surplus capacity where this station's loads can be transferred. The Study Team recommends that Waterloo North Hydro continue monitoring the condition of these T1/T2 transformers at Scheifele MTS and this need to be reassessed in the next regional planning cycle.

Preston TS T3/T4 Transformers

Preston TS (DESN) is located in the city of Cambridge supplying Energy+ loads. Preston TS is a single T3/T4 DESN station of 125 MVA transformers with no additional LTR capability available i.e. 125 MVA (113 MW @ 0.9 PF). This station is currently supplying about 92 MW of peak load. The loads at Preston TS are currently forecasted to peak at about 102 MW during the study period.

Single Unit -83 MVA

Transformer 20 - 450 MVA	17201	Equipment #	Transformers	NEMA Type	Quieted	MVA Rating (Voltage-Ampere)	83													
		Equipment Description	single 83 MVA Transformer	Have Transformeer Dimensions?	YES	S (Surface area of the four side walls in m^3)	80													
		Cadna Memo		Capacity (%)	100	Formula	Lw=45 +12log(MVA) + 10log S													
		Cadna ID	Transformers	Quantity	1	Source	Crocker, Chapter 82, Section 2.7, P. 1004		**31.5**	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**	**dB**	**dBA**	**dBC**
						PWL (dB)	87.1	PWL	84.1	90.1	92.1	87.1	87.1	81.1	76.1	71.1	64.1	96.1	87.4	95.7

Single Unit - 67 MVA

Transformer 20 - 450 MVA	17201	Equipment #	Transformers	NEMA Type	Quieted	MVA Rating (Voltage-Ampere)	67													
		Equipment Description	single 67MVA Transformer	Have Transformeer Dimensions?	YES	S (Surface area of the four side walls in m^3)	42													
		Cadna Memo		Capacity (%)	100	Formula	Lw=45 +12log(MVA) + 10log S													
		Cadna ID	Transformers	Quantity	1	Source	Crocker, Chapter 82, Section 2.7, P. 1004		**31.5**	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**	**dB**	**dBA**	**dBC**
						PWL (dB)	83.1	PWL	80.1	86.1	88.1	83.1	83.1	77.1	72.1	67.1	60.1	92.2	83.5	91.8

Receiver
Name: Block 5 Tower East (West Facade)
ID: !05!
X: 537467.84 m
Y: 4816234.25 m
Z: 12.00 m

Point Source, ISO 9613, Name: "Transformer 4", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
259	537615.87	4816174.31	2.00	0	DEN	32	49.6	0.0	0.0	0.0	0.0	55.1	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-2.5
259	537615.87	4816174.31	2.00	0	DEN	63	68.8	0.0	0.0	0.0	0.0	55.1	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	16.7
259	537615.87	4816174.31	2.00	0	DEN	125	80.9	0.0	0.0	0.0	0.0	55.1	0.1	-1.9	0.0	0.0	0.0	0.0	0.0	27.7
259	537615.87	4816174.31	2.00	0	DEN	250	83.4	0.0	0.0	0.0	0.0	55.1	0.2	-0.8	0.0	0.0	0.0	0.0	0.0	29.0
259	537615.87	4816174.31	2.00	0	DEN	500	88.8	0.0	0.0	0.0	0.0	55.1	0.3	-1.7	0.0	0.0	0.0	0.0	0.0	35.1
259	537615.87	4816174.31	2.00	0	DEN	1000	86.0	0.0	0.0	0.0	0.0	55.1	0.6	-2.2	0.0	0.0	0.0	0.0	0.0	32.5
259	537615.87	4816174.31	2.00	0	DEN	2000	82.2	0.0	0.0	0.0	0.0	55.1	1.5	-2.3	0.0	0.0	0.0	0.0	0.0	27.8
259	537615.87	4816174.31	2.00	0	DEN	4000	77.0	0.0	0.0	0.0	0.0	55.1	5.2	-2.3	0.0	0.0	0.0	0.0	0.0	18.9
259	537615.87	4816174.31	2.00	0	DEN	8000	67.9	0.0	0.0	0.0	0.0	55.1	18.7	-2.3	0.0	0.0	0.0	0.0	0.0	-3.6

Point Source, ISO 9613, Name: "Transformer 3", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
261	537631.00	4816163.05	2.00	0	DEN	32	49.6	0.0	0.0	0.0	0.0	56.0	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-3.4
261	537631.00	4816163.05	2.00	0	DEN	63	68.8	0.0	0.0	0.0	0.0	56.0	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	15.8
261	537631.00	4816163.05	2.00	0	DEN	125	80.9	0.0	0.0	0.0	0.0	56.0	0.1	-1.9	0.0	0.0	0.0	0.0	0.0	26.7
261	537631.00	4816163.05	2.00	0	DEN	250	83.4	0.0	0.0	0.0	0.0	56.0	0.2	-0.8	0.0	0.0	0.0	0.0	0.0	28.0
261	537631.00	4816163.05	2.00	0	DEN	500	88.8	0.0	0.0	0.0	0.0	56.0	0.3	-1.7	0.0	0.0	0.0	0.0	0.0	34.1
261	537631.00	4816163.05	2.00	0	DEN	1000	86.0	0.0	0.0	0.0	0.0	56.0	0.7	-2.2	0.0	0.0	0.0	0.0	0.0	31.5
261	537631.00	4816163.05	2.00	0	DEN	2000	82.2	0.0	0.0	0.0	0.0	56.0	1.7	-2.3	0.0	0.0	0.0	0.0	0.0	26.7
261	537631.00	4816163.05	2.00	0	DEN	4000	77.0	0.0	0.0	0.0	0.0	56.0	5.8	-2.3	0.0	0.0	0.0	0.0	0.0	17.4
261	537631.00	4816163.05	2.00	0	DEN	8000	67.9	0.0	0.0	0.0	0.0	56.0	20.8	-2.3	0.0	0.0	0.0	0.0	0.0	-6.7

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
265	537527.35	4816235.21	7.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	46.5	0.1	-2.2	0.0	0.0	0.0	0.0	0.0	37.6

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
268	537501.18	4816283.56	4.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	46.6	0.1	-2.2	0.0	0.0	0.0	0.0	0.0	37.6

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
270	537535.14	4816235.82	7.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	47.6	0.1	-2.2	0.0	0.0	0.0	0.0	0.0	36.5

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
272	537509.03	4816287.32	4.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	47.6	0.1	-2.2	0.0	0.0	0.0	0.0	0.0	36.5

Point Source, ISO 9613, Name: "Transformer 1", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
275	537607.74	4816111.55	2.00	0	DEN	32	45.6	0.0	0.0	0.0	0.0	56.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-7.8
275	537607.74	4816111.55	2.00	0	DEN	63	64.8	0.0	0.0	0.0	0.0	56.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	11.4
275	537607.74	4816111.55	2.00	0	DEN	125	76.9	0.0	0.0	0.0	0.0	56.4	0.1	-1.9	0.0	0.0	0.0	0.0	0.0	22.3
275	537607.74	4816111.55	2.00	0	DEN	250	79.4	0.0	0.0	0.0	0.0	56.4	0.2	-0.8	0.0	0.0	0.0	0.0	0.0	23.6
275	537607.74	4816111.55	2.00	0	DEN	500	84.8	0.0	0.0	0.0	0.0	56.4	0.4	-1.7	0.0	0.0	0.0	0.0	0.0	29.7
275	537607.74	4816111.55	2.00	0	DEN	1000	82.0	0.0	0.0	0.0	0.0	56.4	0.7	-2.2	0.0	0.0	0.0	0.0	0.0	27.1
275	537607.74	4816111.55	2.00	0	DEN	2000	78.2	0.0	0.0	0.0	0.0	56.4	1.8	-2.3	0.0	0.0	0.0	0.0	0.0	22.2

Point Source, ISO 9613, Name: "Transformer 1", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
275	537607.74	4816111.55	2.00	0	DEN	4000	73.0	0.0	0.0	0.0	0.0	56.4	6.1	-2.3	0.0	0.0	0.0	0.0	0.0	12.7
275	537607.74	4816111.55	2.00	0	DEN	8000	63.9	0.0	0.0	0.0	0.0	56.4	21.8	-2.3	0.0	0.0	0.0	0.0	0.0	-12.0
277	537607.74	4816111.55	2.00	1	DEN	1000	82.0	0.0	0.0	0.0	0.0	57.5	0.8	-2.2	0.0	0.0	0.0	0.0	2.0	23.9
277	537607.74	4816111.55	2.00	1	DEN	2000	78.2	0.0	0.0	0.0	0.0	57.5	2.0	-2.3	0.0	0.0	0.0	0.0	2.0	18.9
277	537607.74	4816111.55	2.00	1	DEN	4000	73.0	0.0	0.0	0.0	0.0	57.5	6.9	-2.3	0.0	0.0	0.0	0.0	2.0	8.8
277	537607.74	4816111.55	2.00	1	DEN	8000	63.9	0.0	0.0	0.0	0.0	57.5	24.8	-2.3	0.0	0.0	0.0	0.0	2.0	-18.1

Point Source, ISO 9613, Name: "Transformer 2", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
279	537618.25	4816124.03	2.00	0	DEN	32	45.6	0.0	0.0	0.0	0.0	56.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-7.8
279	537618.25	4816124.03	2.00	0	DEN	63	64.8	0.0	0.0	0.0	0.0	56.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	11.4
279	537618.25	4816124.03	2.00	0	DEN	125	76.9	0.0	0.0	0.0	0.0	56.4	0.1	-1.9	0.0	0.0	0.0	0.0	0.0	22.3
279	537618.25	4816124.03	2.00	0	DEN	250	79.4	0.0	0.0	0.0	0.0	56.4	0.2	-0.8	0.0	0.0	0.0	0.0	0.0	23.6
279	537618.25	4816124.03	2.00	0	DEN	500	84.8	0.0	0.0	0.0	0.0	56.4	0.4	-1.7	0.0	0.0	0.0	0.0	0.0	29.7
279	537618.25	4816124.03	2.00	0	DEN	1000	82.0	0.0	0.0	0.0	0.0	56.4	0.7	-2.2	0.0	0.0	0.0	0.0	0.0	27.1
279	537618.25	4816124.03	2.00	0	DEN	2000	78.2	0.0	0.0	0.0	0.0	56.4	1.8	-2.3	0.0	0.0	0.0	0.0	0.0	22.2
279	537618.25	4816124.03	2.00	0	DEN	4000	73.0	0.0	0.0	0.0	0.0	56.4	6.1	-2.3	0.0	0.0	0.0	0.0	0.0	12.7
279	537618.25	4816124.03	2.00	0	DEN	8000	63.9	0.0	0.0	0.0	0.0	56.4	21.8	-2.3	0.0	0.0	0.0	0.0	0.0	-12.1
280	537618.25	4816124.03	2.00	1	DEN	1000	82.0	0.0	0.0	0.0	0.0	57.5	0.8	-2.2	0.0	0.0	0.0	0.0	2.0	23.9
280	537618.25	4816124.03	2.00	1	DEN	2000	78.2	0.0	0.0	0.0	0.0	57.5	2.0	-2.3	0.0	0.0	0.0	0.0	2.0	18.9
280	537618.25	4816124.03	2.00	1	DEN	4000	73.0	0.0	0.0	0.0	0.0	57.5	6.9	-2.3	0.0	0.0	0.0	0.0	2.0	8.8
280	537618.25	4816124.03	2.00	1	DEN	8000	63.9	0.0	0.0	0.0	0.0	57.5	24.8	-2.3	0.0	0.0	0.0	0.0	2.0	-18.2

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
281	537478.92	4816330.77	4.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	50.8	0.2	-2.2	0.0	0.0	0.0	0.0	0.0	33.3

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
283	537480.80	4816354.49	4.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	52.7	0.2	-2.2	0.0	0.0	0.0	0.0	0.0	31.3

Point Source, ISO 9613, Name: "Dust Collector", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
285	537667.47	4816071.18	3.00	0	D	500	92.0	0.0	0.0	0.0	0.0	59.2	0.5	-2.2	0.0	0.0	0.0	0.0	0.0	34.5
285	537667.47	4816071.18	3.00	0	N	500	92.0	0.0	-188.0	0.0	0.0	59.2	0.5	-2.2	0.0	0.0	0.0	0.0	0.0	-153.5
285	537667.47	4816071.18	3.00	0	E	500	92.0	0.0	-188.0	0.0	0.0	59.2	0.5	-2.2	0.0	0.0	0.0	0.0	0.0	-153.5
287	537667.47	4816071.18	3.00	1	D	500	92.0	0.0	0.0	0.0	0.0	59.5	0.5	-2.2	0.0	0.0	0.0	0.0	2.0	32.2
287	537667.47	4816071.18	3.00	1	N	500	92.0	0.0	-188.0	0.0	0.0	59.5	0.5	-2.2	0.0	0.0	0.0	0.0	2.0	-155.8
287	537667.47	4816071.18	3.00	1	E	500	92.0	0.0	-188.0	0.0	0.0	59.5	0.5	-2.2	0.0	0.0	0.0	0.0	2.0	-155.8

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
289	537451.24	4816393.99	5.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	55.1	0.3	-2.2	0.0	0.0	0.0	0.0	0.0	28.8

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
290	537438.27	4816403.93	5.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	55.7	0.3	-2.2	0.0	0.0	0.0	0.0	0.0	28.2

Point Source, ISO 9613, Name: "Idle Truck", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
291	537679.85	4815990.90	1.50	0	D	500	92.0	0.0	-6.0	0.0	0.0	61.2	0.6	-1.0	0.0	0.0	5.6	0.0	0.0	19.6
291	537679.85	4815990.90	1.50	0	N	500	92.0	0.0	-6.0	0.0	0.0	61.2	0.6	-1.0	0.0	0.0	5.6	0.0	0.0	19.6
291	537679.85	4815990.90	1.50	0	E	500	92.0	0.0	-188.0	0.0	0.0	61.2	0.6	-1.0	0.0	0.0	5.6	0.0	0.0	-162.4

Point Source, ISO 9613, Name: "Idle Truck", ID: "!05!"																			
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	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)	dB(A)
292	537685.86	4815993.40	1.50	0	D	500	92.0	0.0	-6.0	0.0	0.0	61.2	0.6	-1.0	0.0	0.0	5.5	0.0	0.0	19.6
292	537685.86	4815993.40	1.50	0	N	500	92.0	0.0	-6.0	0.0	0.0	61.2	0.6	-1.0	0.0	0.0	5.5	0.0	0.0	19.6
292	537685.86	4815993.40	1.50	0	E	500	92.0	0.0	-188.0	0.0	0.0	61.2	0.6	-1.0	0.0	0.0	5.5	0.0	0.0	-162.4

Receiver
Name: Block 5 Tower East (West Facade)
ID: !05!
X: 537467.84 m
Y: 4816234.25 m
Z: 12.00 m

Point Source, ISO 9613, Name: "Transformer 4", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
1	537615.87	4816174.31	2.00	0	DEN	A	92.4	0.0	0.0	0.0	0.0	55.1	0.5	-1.8	0.0	0.0	0.0	0.0	0.0	38.5
2	537615.87	4816174.31	2.00	1	DEN	A	92.4	0.0	0.0	0.0	0.0	58.8	0.8	-1.8	0.0	0.0	24.9	0.0	2.0	7.7

Point Source, ISO 9613, Name: "Transformer 3", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
3	537631.00	4816163.05	2.00	0	DEN	A	92.4	0.0	0.0	0.0	0.0	56.0	0.6	-1.8	0.0	0.0	0.0	0.0	0.0	37.5
4	537631.00	4816163.05	2.00	1	DEN	A	92.4	0.0	0.0	0.0	0.0	59.3	0.8	-1.8	0.0	0.0	24.9	0.0	2.0	7.1

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
5	537527.35	4816235.21	7.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	46.5	0.1	-2.2	0.0	0.0	0.0	0.0	0.0	37.6

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
6	537501.18	4816283.56	4.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	46.6	0.1	-2.2	0.0	0.0	0.0	0.0	0.0	37.6

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
7	537535.14	4816235.82	7.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	47.6	0.1	-2.2	0.0	0.0	0.0	0.0	0.0	36.5

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
8	537509.03	4816287.32	4.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	47.6	0.1	-2.2	0.0	0.0	0.0	0.0	0.0	36.5

Point Source, ISO 9613, Name: "Transformer 1", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
9	537607.74	4816111.55	2.00	0	DEN	A	88.4	0.0	0.0	0.0	0.0	56.4	0.6	-1.8	0.0	0.0	0.0	0.0	0.0	33.1
10	537607.74	4816111.55	2.00	1	DEN	A	88.4	0.0	0.0	0.0	0.0	58.9	0.8	-1.8	0.0	0.0	24.9	0.0	2.0	3.5
11	537607.74	4816111.55	2.00	1	DEN	A	88.4	0.0	0.0	0.0	0.0	57.5	0.7	-1.8	0.0	0.0	0.0	0.0	6.7	25.2

Point Source, ISO 9613, Name: "Transformer 2", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
12	537618.25	4816124.03	2.00	0	DEN	A	88.4	0.0	0.0	0.0	0.0	56.4	0.6	-1.8	0.0	0.0	0.0	0.0	0.0	33.1
13	537618.25	4816124.03	2.00	1	DEN	A	88.4	0.0	0.0	0.0	0.0	59.1	0.8	-1.8	0.0	0.0	24.9	0.0	2.0	3.3
14	537618.25	4816124.03	2.00	1	DEN	A	88.4	0.0	0.0	0.0	0.0	57.5	0.7	-1.8	0.0	0.0	0.0	0.0	6.7	25.2

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
15	537478.92	4816330.77	4.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	50.8	0.2	-2.2	0.0	0.0	0.0	0.0	0.0	33.3

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
16	537480.80	4816354.49	4.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	52.7	0.2	-2.2	0.0	0.0	0.0	0.0	0.0	31.3

Point Source, ISO 9613, Name: "Dust Collector", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
17	537667.47	4816071.18	3.00	0	D	A	92.0	0.0	0.0	0.0	0.0	59.2	0.5	-2.2	0.0	0.0	0.0	0.0	0.0	34.5
17	537667.47	4816071.18	3.00	0	N	A	92.0	0.0	-188.0	0.0	0.0	59.2	0.5	-2.2	0.0	0.0	0.0	0.0	0.0	-153.5
17	537667.47	4816071.18	3.00	0	E	A	92.0	0.0	-188.0	0.0	0.0	59.2	0.5	-2.2	0.0	0.0	0.0	0.0	0.0	-153.5
18	537667.47	4816071.18	3.00	1	D	A	92.0	0.0	0.0	0.0	0.0	61.0	0.6	-2.2	0.0	0.0	25.0	0.0	2.0	5.6
18	537667.47	4816071.18	3.00	1	N	A	92.0	0.0	-188.0	0.0	0.0	61.0	0.6	-2.2	0.0	0.0	25.0	0.0	2.0	-182.4
18	537667.47	4816071.18	3.00	1	E	A	92.0	0.0	-188.0	0.0	0.0	61.0	0.6	-2.2	0.0	0.0	25.0	0.0	2.0	-182.4
19	537667.47	4816071.18	3.00	1	D	A	92.0	0.0	0.0	0.0	0.0	59.5	0.5	-2.2	0.0	0.0	0.0	0.0	2.0	32.2
19	537667.47	4816071.18	3.00	1	N	A	92.0	0.0	-188.0	0.0	0.0	59.5	0.5	-2.2	0.0	0.0	0.0	0.0	2.0	-155.8
19	537667.47	4816071.18	3.00	1	E	A	92.0	0.0	-188.0	0.0	0.0	59.5	0.5	-2.2	0.0	0.0	0.0	0.0	2.0	-155.8

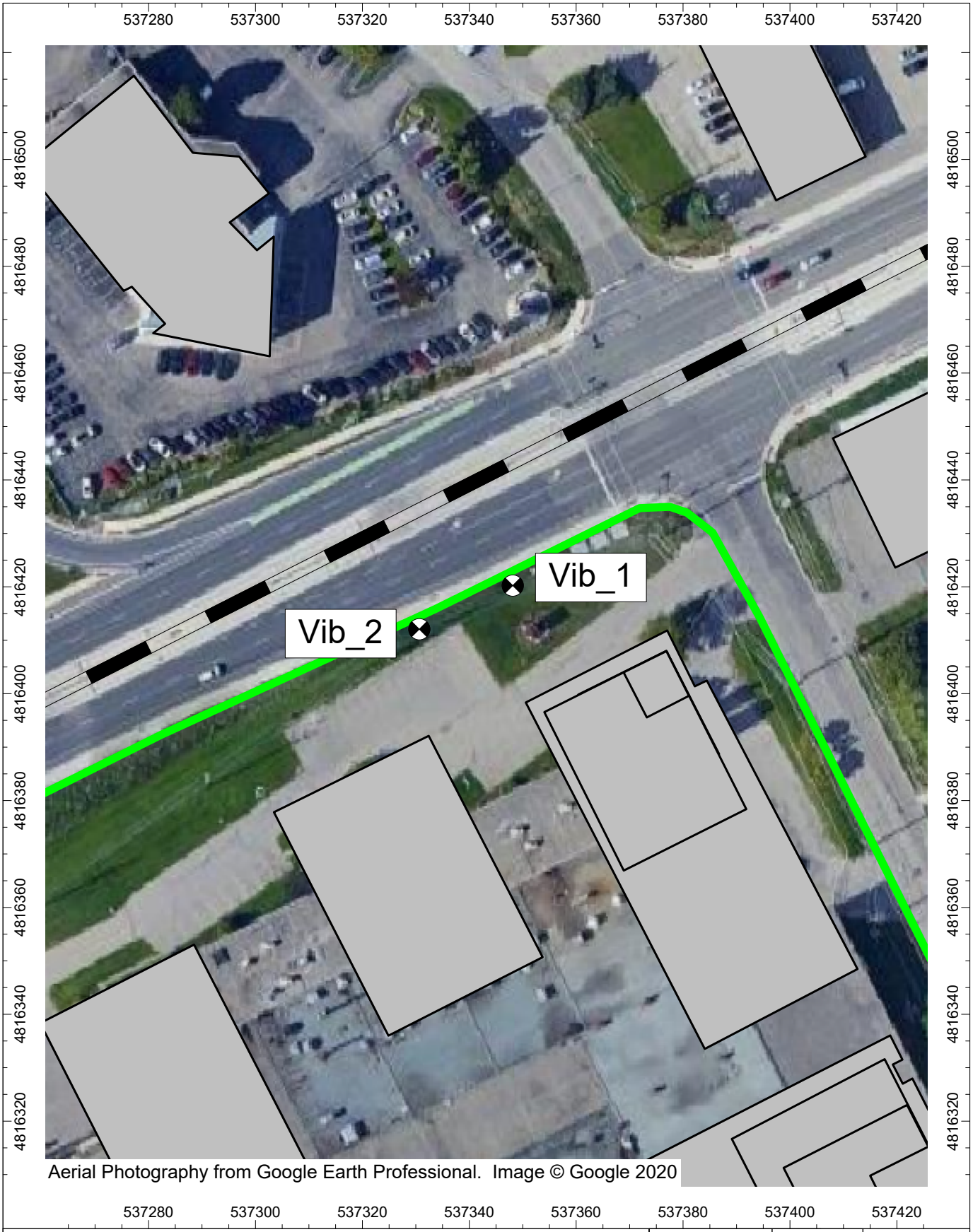
Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
20	537451.24	4816393.99	5.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	55.1	0.3	-2.2	0.0	0.0	0.0	0.0	0.0	28.8

Point Source, ISO 9613, Name: "HVAC_1Fan", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
21	537438.27	4816403.93	5.50	0	DEN	500	82.0	0.0	0.0	0.0	0.0	55.7	0.3	-2.2	0.0	0.0	0.0	0.0	0.0	28.2

Point Source, ISO 9613, Name: "Idle Truck", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
22	537679.85	4815990.90	1.50	0	D	500	92.0	0.0	-6.0	0.0	0.0	61.2	0.6	-1.0	0.0	0.0	5.6	0.0	0.0	19.6
22	537679.85	4815990.90	1.50	0	N	500	92.0	0.0	-6.0	0.0	0.0	61.2	0.6	-1.0	0.0	0.0	5.6	0.0	0.0	19.6
22	537679.85	4815990.90	1.50	0	E	500	92.0	0.0	-188.0	0.0	0.0	61.2	0.6	-1.0	0.0	0.0	5.6	0.0	0.0	-162.4

Point Source, ISO 9613, Name: "Idle Truck", ID: "!05!"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	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)	dB(A)
23	537685.86	4815993.40	1.50	0	D	500	92.0	0.0	-6.0	0.0	0.0	61.2	0.6	-1.0	0.0	0.0	5.5	0.0	0.0	19.6
23	537685.86	4815993.40	1.50	0	N	500	92.0	0.0	-6.0	0.0	0.0	61.2	0.6	-1.0	0.0	0.0	5.5	0.0	0.0	19.6
23	537685.86	4815993.40	1.50	0	E	500	92.0	0.0	-188.0	0.0	0.0	61.2	0.6	-1.0	0.0	0.0	5.5	0.0	0.0	-162.4

APPENDIX E



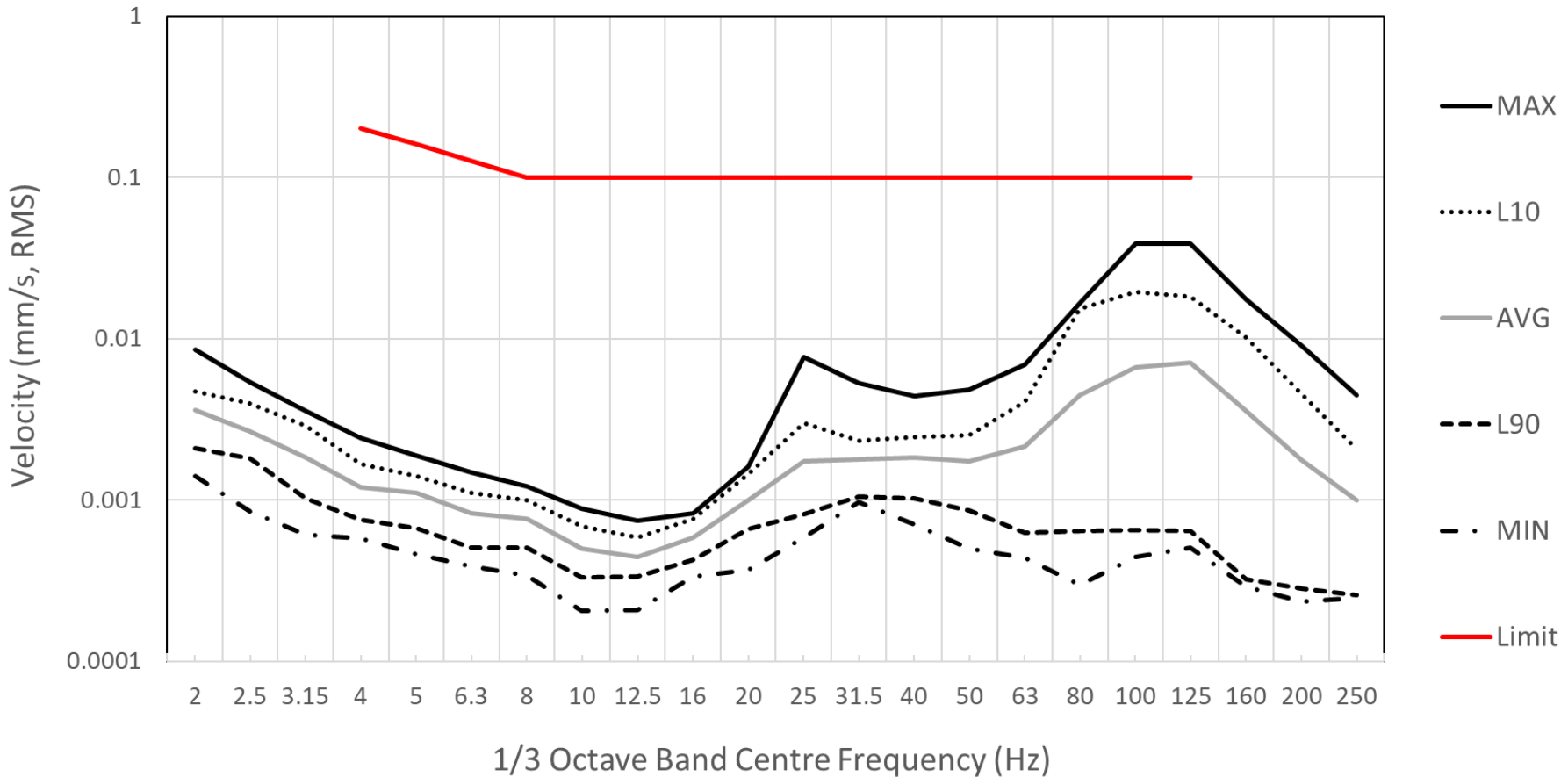
Vibration Measurement Locations

525-565 Conestogo Road - Waterloo, Ontario

True North

Project #2002470

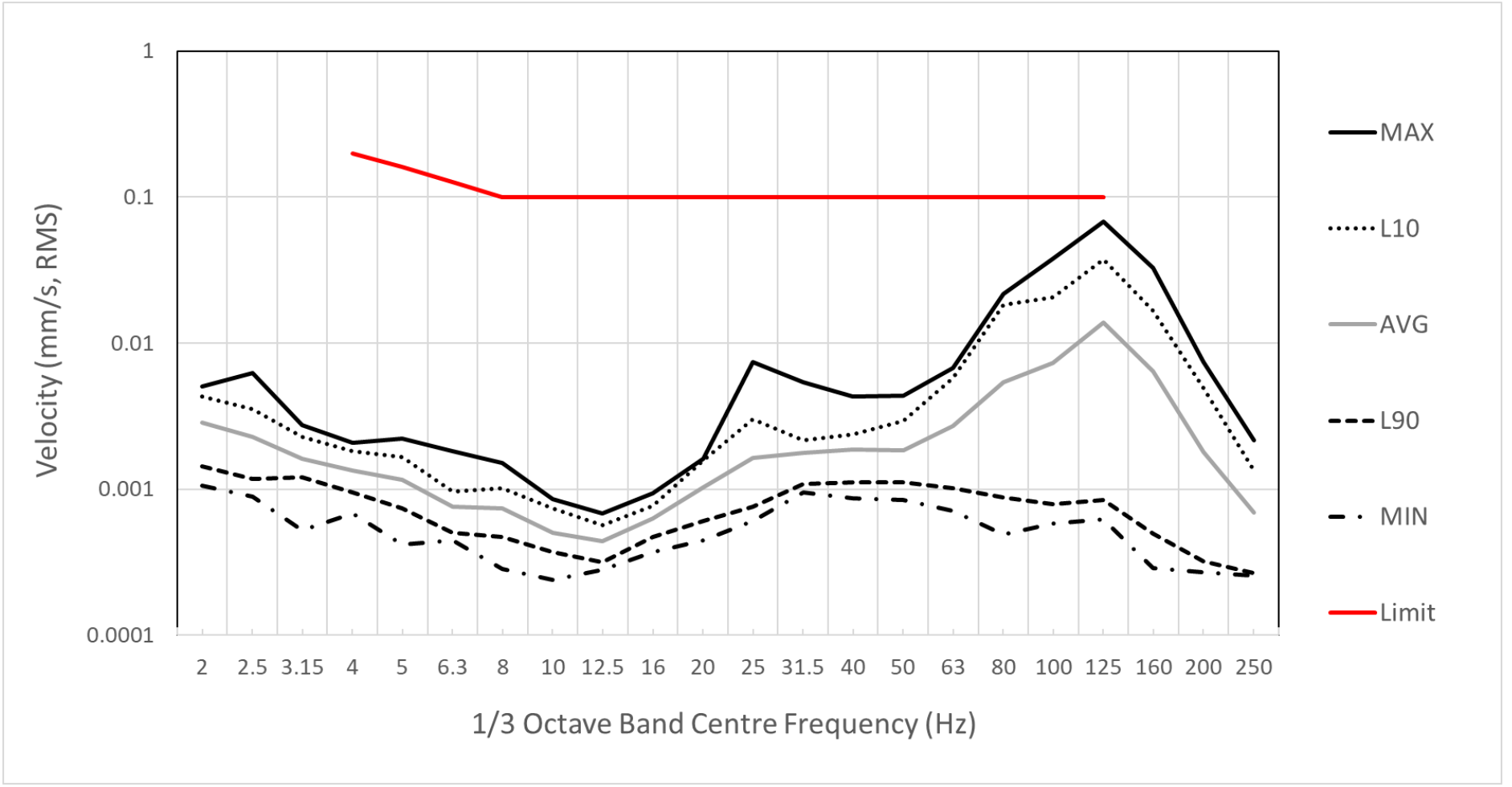
Drawn by: EMJI	Figure **E01**
Scale:	1:1000
Date:	Aug. 27, 2020



525-565 Conestogo Road, Waterloo

Vibration Measurements from LRT Passes – Channel 1 (Vib_1) - All Records

Drawn by: EMJI	Figure:	E02	
Project #:		2002470	
Date:		2021-02-01	

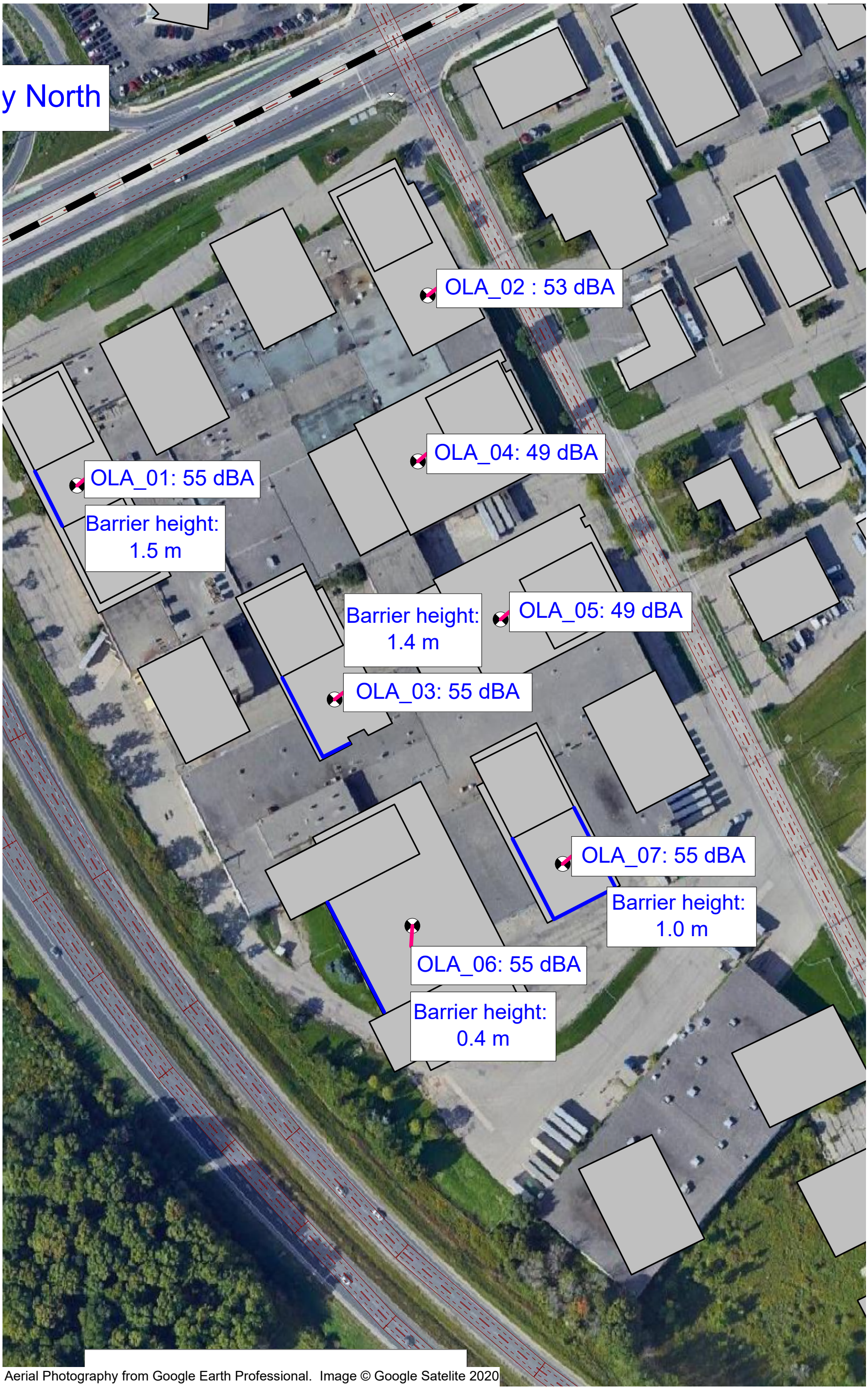


525-565 Conestogo Road, Waterloo

Vibration Measurements from LRT Passes – Channel 2 (Vib_2) - All Records

Drawn by: EMJI	Figure: E03
Project #:	2002470
Date:	2021-02-01

APPENDIX F



OLA Mitigation - Noise Barriers

525-565 Conestogo Road - Waterloo, Ontario

True North

Project #2002470

Drawn by: EMJI	Figure **F01**
Scale:	1:1250
Date:	April 26, 2021