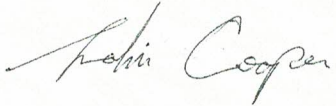


**NOISE IMPACT STUDY (REVISED)
PROPOSED RESIDENTIAL DEVELOPMENT
NINTH LINE & ELM ROAD
WHITCHURCH-STOUFFVILLE, ONTARIO**

FOR

MADORI LIMITED

PREPARED BY



TOBIN COOPER, C.E.T.

CHECKED BY



SAM N. KULENDRAN, B.A.Sc., P.Eng.



**J.E. COULTER ASSOCIATES LIMITED
1210 SHEPPARD AVENUE EAST, SUITE 211
TORONTO, ONTARIO
M2K 1E3**

JULY 10, 2025

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1.0 INTRODUCTION

At the request of Madori Limited, J.E. COULTER ASSOCIATES LIMITED has completed a noise impact study of the proposed residential development located at the northwest quadrant of the intersection of Elm Road and Ninth Line in Whitchurch-Stouffville, Ontario. See Figure #1 in Appendix A for a Key Plan.

The proposed development consists of three blocks of 3-storey townhouses. The development is in a residential area with an elementary school to the immediate north and residential to the south, east, and west. The purpose of the study is to provide recommendations needed to meet the applicable Ministry of the Environment, Conservation and Parks' (MECP) guidelines.

A review of the subject area indicates there are no sources of stationary noise that would affect the future residents of this proposed development. Similarly, there are no sources of vibration that have the potential to affect the future development. The study will focus on potential transportation noise impacts.

2.0 APPLICABLE CRITERIA

The MECP applicable criteria to a site such as this are found in its publication *NPC-300* "Environmental Guide for Noise, Stationary and Transportation Sources – Approval and Planning." As per *NPC-300*, this development would be considered a Class 1 – Urban area.

2.1 Transportation Noise Guidelines

Transportation noise sources addressed by *NPC-300* include aircraft, rail traffic, and roadway traffic (which includes cars, trucks, buses, etc.).

Where the sound levels exceed 55 dB L_{eq} in private outdoor living areas (OLA), MECP requires noise mitigation measures to be incorporated into the subdivision design (i.e., intervening structures such as acoustic barriers or buildings and/or greater setbacks from the noise source). However, MECP will permit sound levels up to 60 dB L_{eq} daytime (5 dB above the criterion level of 55 dB L_{eq}) in private outdoor living areas (OLA) if it is not technically feasible to achieve 55 dB. Where the criterion levels are marginally exceeded, a warning clause is required in the Agreement of Purchase and Sale and the subdivision agreement. With respect to condominiums, balconies and terraces are considered OLAs only if they are 4m or greater in depth.

For residential buildings, the Ministry's ventilation requirements are based on the sound level at the exterior building façade. Where the sound levels at the exterior of the building façade exceed 55 dB L_{eq} daytime at the living room window or 50 dB L_{eq} nighttime at the bedroom window, the unit must be provided with forced air heating, with a provision for future air conditioning by the owner. An excess up to 10 dB is permissible, provided a warning clause is given. Where the sound levels exceed this limit (i.e., 65 dB L_{eq} daytime or 60 dB L_{eq} nighttime), air conditioning must be incorporated into the building design prior to occupancy. Warning clauses are applicable as well.

Air-conditioning requirements are applied so that adequate interior sound levels can be maintained with the windows closed.

The MECP also stipulates acceptable indoor sound levels limits, which vary depending on whether they are railway or roadway noise sources. The applicable MECP criteria are summarized in Table 1, below.

Table 1: Noise Criteria Summary

Type of Space	Road	
	Daytime (dB L _{eq}) (0700–2300)	Nighttime (dB L _{eq}) (2300–0700)
Outdoor Living Area (O.L.A.)	55	N/A
Bedrooms	45	40
Living/Dining	45	45
Kitchen/Baths	45	45

Note: OLAs for condominiums include elevated terraces/balconies greater than 4m in depth and common amenity areas such as rooftop patios. Grade-level patios etc. are considered OLAs regardless of depth.

The townhouse units are designed as dual fronting townhouses and have not been provided with grade level outdoor living areas. Additionally the 2nd and 3rd level balconies are less than 4.0m in depth and do not qualify as OLAs as per NPC-300. If front yards, back yards, side yards are provided or the depth of the elevated balconies are increased to 4m or greater or other terraces/balconies greater than 4m in depth are added, such areas will need to be addressed and may require noise barriers to meet the noise guidelines.

3.0 TRANSPORTATION NOISE SOURCES

The following sections summarize the noise sources surrounding the proposed development.

3.1 Roadway Noise Sources

The Average Annual Daily Traffic (AADT) volumes for Ninth line were provided by the Region of York and volumes for Elm Road were provided by the project's traffic consultant. The ultimate traffic volumes are used for Ninth Line and the traffic volumes for Elm Road have been provided by the project's traffic consultant. A day/night split of 94/6% was used for Ninth Line and Elm Road. The traffic volumes used in the analysis is summarized in Table 2, below.

Table 2: Road Traffic Volumes

Roadway	Traffic Volumes (AADT)	Truck Percentage (%)		Speed Limit (km/h)
		Medium	Heavy	
Elm Road (2035)	1,585	3	3	50
Ninth Line (Ultimate)	15,000	3	3	50

Generally, noise from Elm Road is expected to be relatively insignificant.

4.0 TRANSPORTATION NOISE ASSESSMENT

Based on the volumes provided in Section 3.0, the sound levels have been calculated at various façades of the proposed development. The roadway sound levels were calculated using the TNM module as implemented in CADNAA, in accordance with MECP publication *NPC-306*. Reflective ground absorption has been used in the calculations. The calculated sound levels are summarized in Table 3, below. Please see Appendix B for sample calculations.

Table 3: Transportation Noise Summary

Location	Point of Reception	Road	
		Daytime (dBA, $L_{eq,16hr}$)	Nighttime (dBA, $L_{eq,8hr}$)
Building #1 3-Storey Townhouse	Unit #8 North Façade	53	44
	Unit #9 North Façade	54	45
	Unit #9 East Façade	55	47
Building #2 3-Storey Townhouse	Unit #10 North Façade	59	50
	Unit #10 East Façade	62	53
	Unit #12 East Façade	60	51
Building #3 3-Storey Townhouse	Unit #13 South Façade	58	49
	Unit #17 South Façade	57	48
	Unit #20 South Façade	56	47

Notes:

1. Calculations are based on the Site Plan provided by VA3 Design, dated June 20, 2025.
2. The receiver heights are assumed to be 7.5m above grade.

4.1 Façade and Ventilation Control Recommendations

The predicted sound levels exceed the applicable MECP noise guidelines. Ventilation upgrades and minor façade upgrades should be implemented as follows.

As the sound levels are greater than 55 dBA L_{eq} and less than or equal to 65 dBA L_{eq} during the daytime for some units with direct exposure to the nearby roadways, all units should be provided with forced air heating with a provision for future air conditioning at the owner's discretion. It is likely all units will be provided with central air conditioning in any case, as is standard for such residential developments. All units mentioned above will need to be supplied with Warning Clause C (see Appendix C) in their Agreements of Purchase/Sale or Lease.

Any AC condensing units provided as part of the development should comply with NPC-216 and should not exceed a sound power level of 76 dBA.

Suite details have not been completed at this stage of the design. Based on the assumption of a window-to-floor area of 1:1, the following outlines the window configurations needed to achieve the STC ratings required to meet the applicable indoor sound levels:

1. All glazing on the north, south, and east facades of Building #2 may use windows rated to STC 30. The west façade may use standard OBC compliant glazing as upgrades are not needed.
2. Buildings 1 and 3 may use standard OBC compliant glazing as upgrades are not needed.
3. Any standard OBC compliant exterior wall or ceiling construction may be used for all buildings.

The glazing recommendations are based on preliminary suite layouts. However, given the modest sound levels, the final suite layouts should not affect the final glazing STC recommendations.

5.0 CONCLUSIONS

The proposed development is located in an area with a modest amount of transportation noise. Unmitigated, transportation sound levels exceed the MECP guidelines in limited areas. As a result, noise control measures in the form of ventilation upgrades, and slightly upgraded façade elements have been recommended. The extent and nature of these upgrades are similar to those required for most residential buildings near similar roadways.

Overall, the transportation noise study demonstrates that the proposed development meets the applicable MECP guidelines. There are no major noise issues that would prove challenging to address at later stages of the design.

6.0 SUMMARY OF RECOMMENDATIONS

To meet the requirements of the MECP, the following noise control measures will be required:

1. All units should be provided with forced air heating with a provision for future air conditioning by the owner, and supplied with Warning Clause C (see Appendix C) in their Agreements of Purchase/Sale or Lease. It is likely the units will be provided with central air conditioning in any case, as is standard for developments such as this. AC condensing units should meet NPC-216 requirements and not exceed 76 dBA sound power level.
2. Based on the sound levels, upgrades beyond STC 30 for the glazing are not expected to be required. Any OBC compliant exterior wall construction may be used for the entirety of the development. As the transportation sound levels are modest, the recommendations for glazing are unlikely to change once the suite layouts are finalized.

APPENDIX A: FIGURES

EXTENT OF LAND

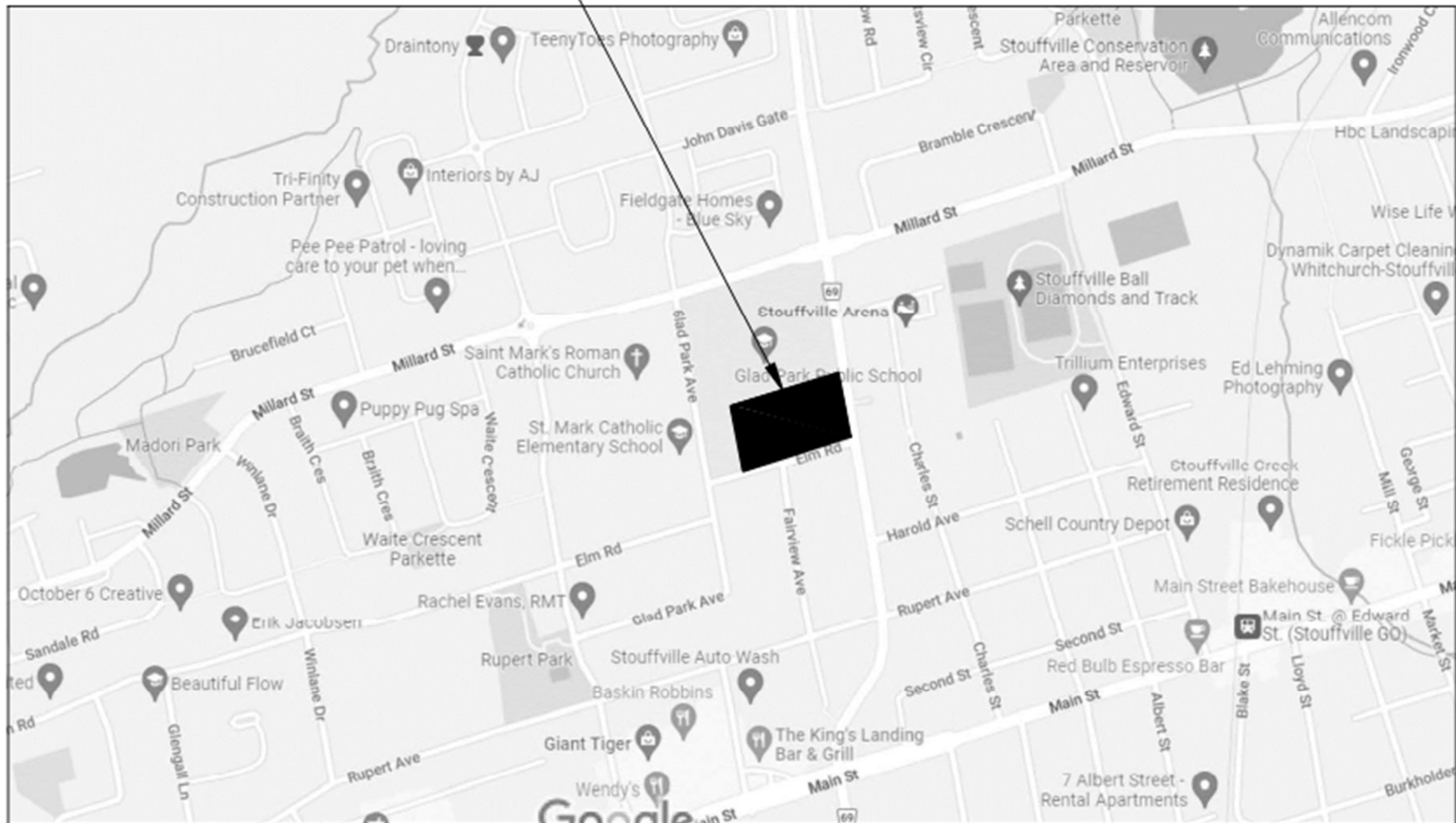


Figure 1: Key Plan

GLAD PARK PUBLIC SCHOOL

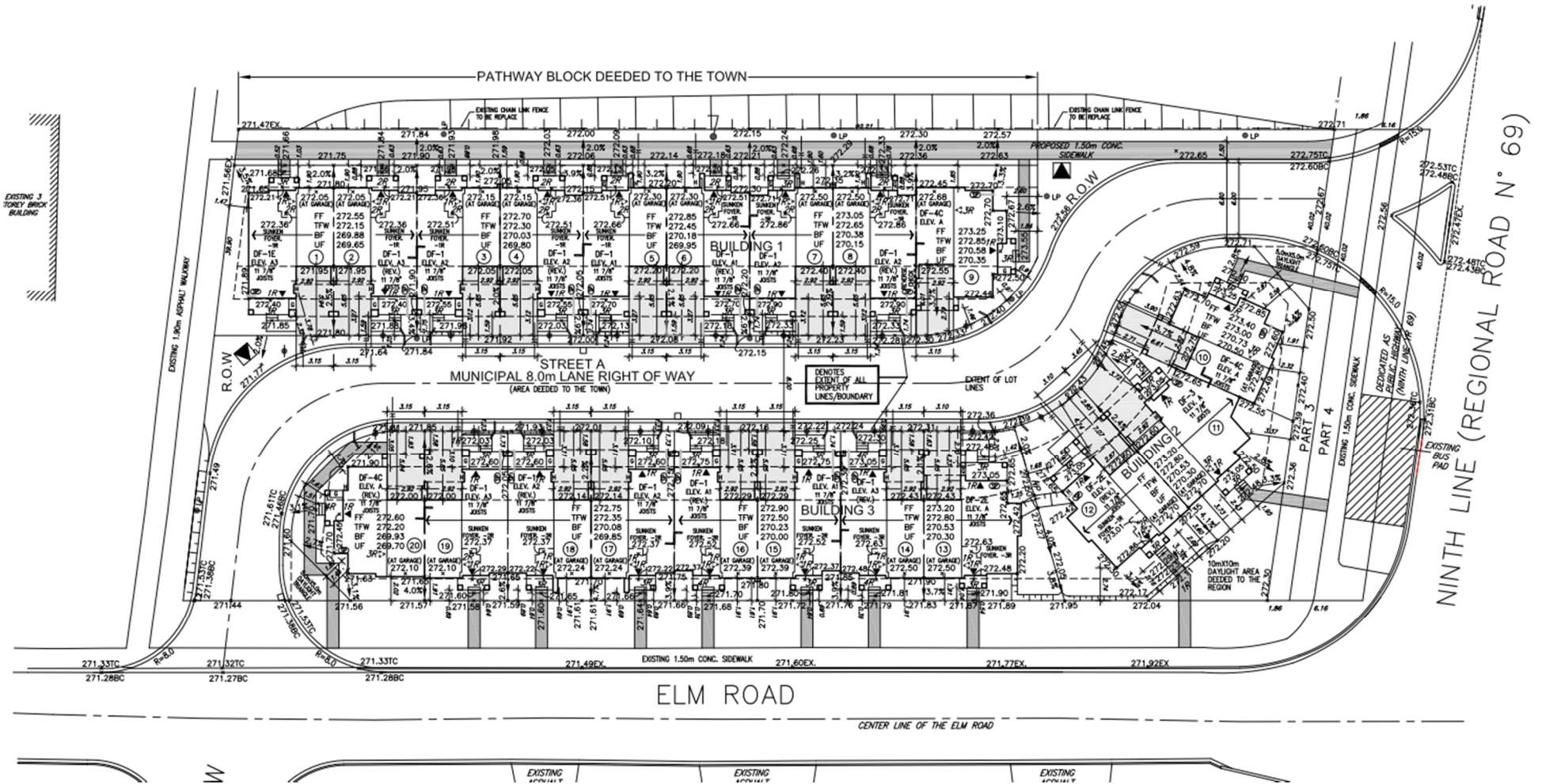


Figure 2: Site Plan

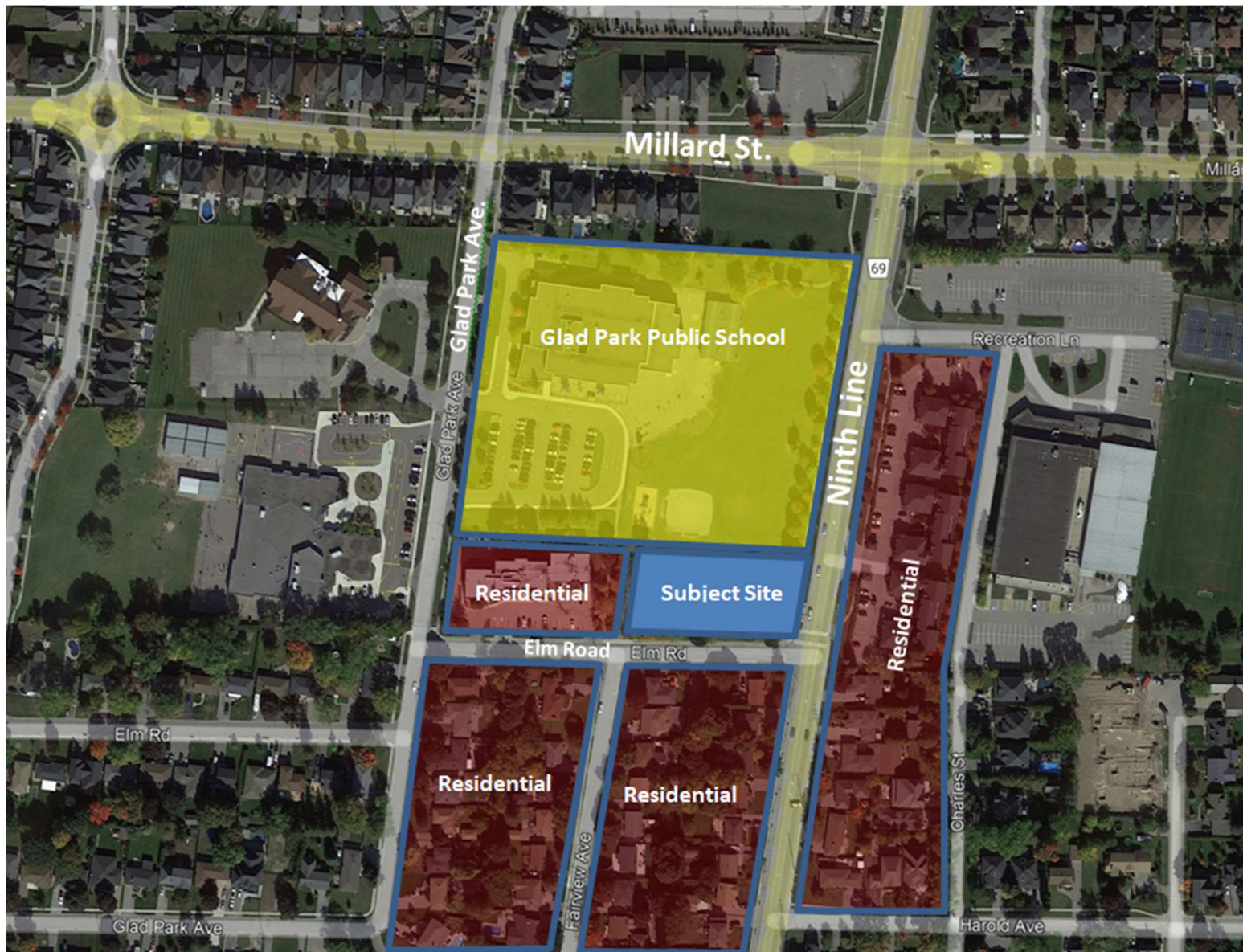


Figure 3: Surrounding Land Uses

APPENDIX B: SAMPLE CALCULATIONS AND DATA



Public Works
Transportation and Infrastructure Planning

April 25, 2023

Tobin Cooper
JE Coulter Associates
1210 Sheppard Avenue East, Suite 211
Scarborough, ON M2K 1E3

Re: Request for Traffic Data
File No. T09, Forecasts - Whitchurch-Stouffville

As requested, the traffic data for your study are summarized below.

	<u>Ninth Line</u>
Section No.	69-16
Location	North of Main Street
Existing AADT	9,000 (2019)
Ultimate AADT	15,000
No. of Lanes	2
Posted Speed	50 km/h
Trucks (Med/Heavy)	3% / 3%
Grade	Up to 2%
Day/Night Split	94/6
Planned ROW	Up to 36 m

I trust that this will be satisfactory for your study. The invoice will be sent to you separately.

Sincerely,

Wenli Gao
Transportation Planning, Forecasting

WG/wg

YORK-#15201729-v1-230018_Cooper_Ninth_north_Main.docx

From: Sher, Ilya <ilya.sher@aecom.com>
Sent: June 18, 2025 2:26 PM
To: Mallory Nievas <MNievas@thebiglierigroup.com>
Cc: nick@fieldgatedevelopments.com
Subject: Elm Road - AADTs

Hi Mallory,

Here are the AADTs:

Ninth Line south of Elm – 9,000
Ninth Line north of Elm – 8,400
Elm Road – 1,250

These are existing AADTs based on the most recent traffic count at Elm/Ninth Line (peak hour volumes converted to AADTs). We never needed to derive future traffic volumes as the requirement was to assess existing and existing plus site traffic conditions. Since the site hardly generates any traffic, there is virtually no difference in AADT. If we were to estimate daily traffic volumes generated by the site, I'd say it would be up 50 cars on Elm, and say 60-70 on Ninth Line south of Elm. Depending on what horizon year they use, they may need to apply some nominal growth rate to existing traffic volumes. I'd use 1% per year for Elm and 2% for Ninth Line if they are not projecting too far into the future. If they need truck percentages, based on the same traffic survey that was undertaken in March 2023, Ninth Line has about 2.5%-3% trucks and Elm is about 6%. Hope this helps.

Ilya

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Fieldgate Development - Ninth Line and Elm Road

Name	Sel.	M.	ID	Level Lr			Limit. Value			Land Use			Height	Coordinates		
				Day	Le	Night	Day	Le	Night	Type	Auto	Noise Type		X	Y	Z
				(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(m)	(m)	(m)	(m)
Building #1 - Unit #9 East Facade		+		56.0	-71.5	47.1	0.0	0.0	0.0		x	Total	7.50	r17639787.35	4870399.95	7.50
Building #1 - Unit #9 North Facade		+		54.1	-73.1	45.2	0.0	0.0	0.0		x	Total	7.50	r17639783.37	4870400.77	7.50
Building #2 - Unit #10 North Facade		+		58.9	-69.2	50.0	0.0	0.0	0.0		x	Total	7.50	r17639809.66	4870399.30	7.50
Building #2 - Unit #10 East Facade				62.2	-65.6	53.3	0.0	0.0	0.0		x	Total	7.50	r17639813.36	4870396.50	7.50
Building #3 - Unit #13 South Facade				58.2	-63.4	49.3	0.0	0.0	0.0		x	Total	7.50	r17639796.47	4870370.32	7.50
Building #2 - Unit #12 East Facade				59.9	-65.1	51.0	0.0	0.0	0.0		x	Total	7.50	r17639808.18	4870376.85	7.50
Building #3 - Unit #17 South Facade		+		56.6	-63.7	47.7	0.0	0.0	0.0		x	Total	7.50	r17639769.23	4870361.88	7.50
Building #3 - Unit #20 South Facade		+		55.8	-63.8	46.9	0.0	0.0	0.0		x	Total	7.50	r17639741.81	4870353.38	7.50
Building #1 - Unit #8 North Facade		+		53.3	-73.6	44.3	0.0	0.0	0.0		x	Total	7.50	r17639776.72	4870398.73	7.50

Calculation Summary



Receiver

Name: Building #1 - Unit #9 East Facade

ID:

X: 17639787.35 m

Y: 4870399.95 m

Z: 7.50 m

Road, TNM, Name: "Ninth Line", ID: ""

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	Ad (dB)	Aair (dB)	Agr (dB)	Afol (dB)	RL (dB)	Lr dB(A)
1	17639795.87	4870606.16	0.10	0	D	A	53.7	-21.5	0.0	-3.6	0.0	0.0	35.7
1	17639795.87	4870606.16	0.10	0	N	A	44.8	-21.5	0.0	-3.6	0.0	0.0	26.8
3	17639806.88	4870546.91	0.10	0	D	A	53.7	-18.6	0.0	-4.0	0.0	0.0	39.1
3	17639806.88	4870546.91	0.10	0	N	A	44.8	-18.6	0.0	-4.0	0.0	0.0	30.2
5	17639815.14	4870502.47	0.10	0	D	A	53.7	-18.8	0.0	-4.4	0.0	0.0	39.2
5	17639815.14	4870502.47	0.10	0	N	A	44.8	-18.8	0.0	-4.4	0.0	0.0	30.3
8	17639820.64	4870472.85	0.10	0	D	A	53.7	-16.3	0.0	-4.5	0.0	0.0	41.8
8	17639820.64	4870472.85	0.10	0	N	A	44.8	-16.3	0.0	-4.5	0.0	0.0	32.9
10	17639824.77	4870450.63	0.10	0	D	A	53.7	-17.3	0.0	-4.5	0.0	0.0	40.9
10	17639824.77	4870450.63	0.10	0	N	A	44.8	-17.3	0.0	-4.5	0.0	0.0	31.9
17	17639827.52	4870435.82	0.10	0	D	A	53.7	-16.0	0.0	-4.4	0.0	0.0	42.2
17	17639827.52	4870435.82	0.10	0	N	A	44.8	-16.0	0.0	-4.4	0.0	0.0	33.2
20	17639830.27	4870421.01	0.10	0	D	A	53.7	-15.0	0.0	-4.4	0.0	0.0	43.1
20	17639830.27	4870421.01	0.10	0	N	A	44.8	-15.0	0.0	-4.4	0.0	0.0	34.2
21	17639833.03	4870406.19	0.10	0	D	A	53.7	-14.7	0.0	-4.3	0.0	0.0	43.3
21	17639833.03	4870406.19	0.10	0	N	A	44.8	-14.7	0.0	-4.3	0.0	0.0	34.4
33	17639835.68	4870391.91	0.10	0	D	A	53.7	-15.5	0.0	21.4	0.0	0.0	16.8
36	17639838.24	4870378.15	0.10	0	D	A	53.7	-16.5	0.0	21.9	0.0	0.0	15.3
39	17639842.07	4870357.51	0.10	0	D	A	53.7	-15.4	0.0	19.6	0.0	0.0	18.6
42	17639847.19	4870329.99	0.10	0	D	A	53.7	-17.9	0.0	17.1	0.0	0.0	18.7
45	17639852.30	4870302.47	0.10	0	D	A	53.7	-20.0	0.0	15.6	0.0	0.0	18.1
47	17639859.41	4870264.22	0.10	0	D	A	53.7	-19.8	0.0	-4.0	0.0	0.0	37.9
47	17639859.41	4870264.22	0.10	0	N	A	44.8	-19.8	0.0	-4.0	0.0	0.0	29.0
49	17639868.51	4870215.24	0.10	0	D	A	53.7	-22.2	0.0	-3.6	0.0	0.0	35.1
49	17639868.51	4870215.24	0.10	0	N	A	44.8	-22.2	0.0	-3.6	0.0	0.0	26.2
51	17639784.51	4870604.36	0.10	0	D	A	53.7	-21.5	0.0	-3.6	0.0	0.0	35.8
51	17639784.51	4870604.36	0.10	0	N	A	44.8	-21.5	0.0	-3.6	0.0	0.0	26.9
53	17639795.41	4870545.70	0.10	0	D	A	53.7	-18.5	0.0	-4.1	0.0	0.0	39.2
53	17639795.41	4870545.70	0.10	0	N	A	44.8	-18.5	0.0	-4.1	0.0	0.0	30.3
55	17639803.58	4870501.72	0.10	0	D	A	53.7	-18.6	0.0	-4.4	0.0	0.0	39.5
55	17639803.58	4870501.72	0.10	0	N	A	44.8	-18.6	0.0	-4.4	0.0	0.0	30.6
58	17639809.03	4870472.39	0.10	0	D	A	53.7	-15.8	0.0	-4.5	0.0	0.0	42.4
58	17639809.03	4870472.39	0.10	0	N	A	44.8	-15.8	0.0	-4.5	0.0	0.0	33.4
60	17639813.12	4870450.40	0.10	0	D	A	53.7	-16.4	0.0	-4.5	0.0	0.0	41.7
60	17639813.12	4870450.40	0.10	0	N	A	44.8	-16.4	0.0	-4.5	0.0	0.0	32.8
62	17639815.84	4870435.74	0.10	0	D	A	53.7	-14.6	0.0	-4.3	0.0	0.0	43.4
62	17639815.84	4870435.74	0.10	0	N	A	44.8	-14.6	0.0	-4.3	0.0	0.0	34.5
64	17639818.56	4870421.07	0.10	0	D	A	53.7	-13.0	0.0	-4.1	0.0	0.0	44.8
64	17639818.56	4870421.07	0.10	0	N	A	44.8	-13.0	0.0	-4.1	0.0	0.0	35.9
68	17639821.29	4870406.41	0.10	0	D	A	53.7	-12.2	0.0	-4.0	0.0	0.0	45.4
68	17639821.29	4870406.41	0.10	0	N	A	44.8	-12.2	0.0	-4.0	0.0	0.0	36.5
73	17639823.61	4870393.92	0.10	0	D	A	53.7	-14.3	0.0	26.1	0.0	0.0	13.3
79	17639825.53	4870383.59	0.10	0	D	A	53.7	-15.3	0.0	25.5	0.0	0.0	12.9
87	17639828.41	4870368.11	0.10	0	D	A	53.7	-14.2	0.0	22.6	0.0	0.0	16.9
92	17639832.24	4870347.46	0.10	0	D	A	53.7	-16.6	0.0	19.9	0.0	0.0	17.2
97	17639836.08	4870326.81	0.10	0	D	A	53.7	-18.7	0.0	17.1	0.0	0.0	17.8
99	17639841.79	4870296.10	0.10	0	D	A	53.7	-18.2	0.0	-4.3	0.0	0.0	39.7
99	17639841.79	4870296.10	0.10	0	N	A	44.8	-18.2	0.0	-4.3	0.0	0.0	30.8
101	17639849.36	4870255.31	0.10	0	D	A	53.7	-20.8	0.0	-4.0	0.0	0.0	36.8
101	17639849.36	4870255.31	0.10	0	N	A	44.8	-20.8	0.0	-4.0	0.0	0.0	27.9
106	17639854.93	4870225.38	0.10	0	D	A	53.7	-25.7	0.0	12.8	0.0	0.0	15.2
109	17639859.22	4870202.25	0.10	0	D	A	53.7	-25.2	0.0	12.6	0.0	0.0	15.9

Road, TNM, Name: "Ninth Line", ID: ""													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
112	17639795.87	4870606.16	1.52	0	D	A	52.0	-21.5	0.0	-2.3	0.0	0.0	32.7
112	17639795.87	4870606.16	1.52	0	N	A	43.0	-21.5	0.0	-2.3	0.0	0.0	23.8
113	17639806.88	4870546.91	1.52	0	D	A	52.0	-18.6	0.0	-1.4	0.0	0.0	34.8
113	17639806.88	4870546.91	1.52	0	N	A	43.0	-18.6	0.0	-1.4	0.0	0.0	25.8
114	17639815.14	4870502.47	1.52	0	D	A	52.0	-18.8	0.0	-0.3	0.0	0.0	33.5
114	17639815.14	4870502.47	1.52	0	N	A	43.0	-18.8	0.0	-0.3	0.0	0.0	24.6
116	17639820.64	4870472.85	1.52	0	D	A	52.0	-16.3	0.0	-0.1	0.0	0.0	35.7
116	17639820.64	4870472.85	1.52	0	N	A	43.0	-16.3	0.0	-0.1	0.0	0.0	26.8
118	17639824.77	4870450.63	1.52	0	D	A	52.0	-17.3	0.0	-1.3	0.0	0.0	36.0
118	17639824.77	4870450.63	1.52	0	N	A	43.0	-17.3	0.0	-1.3	0.0	0.0	27.0
120	17639827.52	4870435.82	1.52	0	D	A	52.0	-16.0	0.0	-2.3	0.0	0.0	38.3
120	17639827.52	4870435.82	1.52	0	N	A	43.0	-16.0	0.0	-2.3	0.0	0.0	29.4
124	17639830.27	4870421.01	1.52	0	D	A	52.0	-15.0	0.0	-2.7	0.0	0.0	39.7
124	17639830.27	4870421.01	1.52	0	N	A	43.0	-15.0	0.0	-2.7	0.0	0.0	30.8
125	17639833.03	4870406.19	1.52	0	D	A	52.0	-14.7	0.0	-2.9	0.0	0.0	40.1
125	17639833.03	4870406.19	1.52	0	N	A	43.0	-14.7	0.0	-2.9	0.0	0.0	31.2
127	17639835.68	4870391.91	1.52	0	D	A	52.0	-15.5	0.0	22.1	0.0	0.0	14.4
128	17639838.24	4870378.15	1.52	0	D	A	52.0	-16.5	0.0	22.4	0.0	0.0	13.0
132	17639842.07	4870357.51	1.52	0	D	A	52.0	-15.4	0.0	19.1	0.0	0.0	17.5
134	17639847.19	4870329.99	1.52	0	D	A	52.0	-17.9	0.0	19.2	0.0	0.0	14.9
137	17639852.30	4870302.47	1.52	0	D	A	52.0	-20.0	0.0	18.4	0.0	0.0	13.6
138	17639859.41	4870264.22	1.52	0	D	A	52.0	-19.8	0.0	-1.5	0.0	0.0	33.7
138	17639859.41	4870264.22	1.52	0	N	A	43.0	-19.8	0.0	-1.5	0.0	0.0	24.8
139	17639868.51	4870215.24	1.52	0	D	A	52.0	-22.2	0.0	-2.2	0.0	0.0	32.0
139	17639868.51	4870215.24	1.52	0	N	A	43.0	-22.2	0.0	-2.2	0.0	0.0	23.1
142	17639784.51	4870604.36	1.52	0	D	A	52.0	-21.5	0.0	-2.3	0.0	0.0	32.7
142	17639784.51	4870604.36	1.52	0	N	A	43.0	-21.5	0.0	-2.3	0.0	0.0	23.8
145	17639795.41	4870545.70	1.52	0	D	A	52.0	-18.5	0.0	-1.3	0.0	0.0	34.8
145	17639795.41	4870545.70	1.52	0	N	A	43.0	-18.5	0.0	-1.3	0.0	0.0	25.9
148	17639803.58	4870501.72	1.52	0	D	A	52.0	-18.6	0.0	-0.2	0.0	0.0	33.6
148	17639803.58	4870501.72	1.52	0	N	A	43.0	-18.6	0.0	-0.2	0.0	0.0	24.7
150	17639809.03	4870472.39	1.52	0	D	A	52.0	-15.8	0.0	-0.3	0.0	0.0	36.4
150	17639809.03	4870472.39	1.52	0	N	A	43.0	-15.8	0.0	-0.3	0.0	0.0	27.5
153	17639813.12	4870450.40	1.52	0	D	A	52.0	-16.4	0.0	-2.0	0.0	0.0	37.6
153	17639813.12	4870450.40	1.52	0	N	A	43.0	-16.4	0.0	-2.0	0.0	0.0	28.6
155	17639815.84	4870435.74	1.52	0	D	A	52.0	-14.6	0.0	-2.9	0.0	0.0	40.3
155	17639815.84	4870435.74	1.52	0	N	A	43.0	-14.6	0.0	-2.9	0.0	0.0	31.4
158	17639818.56	4870421.07	1.52	0	D	A	52.0	-13.0	0.0	-3.4	0.0	0.0	42.5
158	17639818.56	4870421.07	1.52	0	N	A	43.0	-13.0	0.0	-3.4	0.0	0.0	33.5
163	17639821.29	4870406.41	1.52	0	D	A	52.0	-12.2	0.0	-3.6	0.0	0.0	43.3
163	17639821.29	4870406.41	1.52	0	N	A	43.0	-12.2	0.0	-3.6	0.0	0.0	34.4
171	17639825.53	4870383.59	1.52	0	D	A	52.0	-15.3	0.0	25.8	0.0	0.0	10.8
174	17639828.41	4870368.11	1.52	0	D	A	52.0	-14.2	0.0	22.8	0.0	0.0	15.0
177	17639832.24	4870347.46	1.52	0	D	A	52.0	-16.6	0.0	19.2	0.0	0.0	16.2
181	17639836.08	4870326.81	1.52	0	D	A	52.0	-18.7	0.0	19.5	0.0	0.0	13.8
182	17639841.79	4870296.10	1.52	0	D	A	52.0	-18.2	0.0	-0.6	0.0	0.0	34.4
182	17639841.79	4870296.10	1.52	0	N	A	43.0	-18.2	0.0	-0.6	0.0	0.0	25.4
184	17639849.36	4870255.31	1.52	0	D	A	52.0	-20.8	0.0	-1.6	0.0	0.0	32.7
184	17639849.36	4870255.31	1.52	0	N	A	43.0	-20.8	0.0	-1.6	0.0	0.0	23.8
186	17639854.93	4870225.38	1.52	0	D	A	52.0	-25.7	0.0	13.4	0.0	0.0	12.8
188	17639859.22	4870202.25	1.52	0	D	A	52.0	-25.2	0.0	13.1	0.0	0.0	13.7
459	17639795.87	4870606.16	3.66	0	D	A	36.8	-21.5	0.0	-1.2	0.0	0.0	16.4
460	17639806.88	4870546.91	3.66	0	D	A	36.8	-18.6	0.0	-0.8	0.0	0.0	19.0
460	17639806.88	4870546.91	3.66	0	N	A	27.9	-18.6	0.0	-0.8	0.0	0.0	10.1
461	17639815.14	4870502.47	3.66	0	D	A	36.8	-18.8	0.0	-1.2	0.0	0.0	19.2
461	17639815.14	4870502.47	3.66	0	N	A	27.9	-18.8	0.0	-1.2	0.0	0.0	10.2
462	17639820.64	4870472.85	3.66	0	D	A	36.8	-16.3	0.0	-1.9	0.0	0.0	22.4
462	17639820.64	4870472.85	3.66	0	N	A	27.9	-16.3	0.0	-1.9	0.0	0.0	13.4
464	17639824.77	4870450.63	3.66	0	D	A	36.8	-17.3	0.0	-2.6	0.0	0.0	22.0
464	17639824.77	4870450.63	3.66	0	N	A	27.9	-17.3	0.0	-2.6	0.0	0.0	13.1
465	17639827.52	4870435.82	3.66	0	D	A	36.8	-16.0	0.0	-2.6	0.0	0.0	23.4
465	17639827.52	4870435.82	3.66	0	N	A	27.9	-16.0	0.0	-2.6	0.0	0.0	14.4
466	17639830.27	4870421.01	3.66	0	D	A	36.8	-15.0	0.0	-2.8	0.0	0.0	24.6

Road, TNM, Name: "Ninth Line", ID: ""													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
466	17639830.27	4870421.01	3.66	0	N	A	27.9	-15.0	0.0	-2.8	0.0	0.0	15.7
467	17639833.03	4870406.19	3.66	0	D	A	36.8	-14.7	0.0	-2.6	0.0	0.0	24.7
467	17639833.03	4870406.19	3.66	0	N	A	27.9	-14.7	0.0	-2.6	0.0	0.0	15.8
478	17639859.41	4870264.22	3.66	0	D	A	36.8	-19.8	0.0	-1.0	0.0	0.0	18.0
480	17639868.51	4870215.24	3.66	0	D	A	36.8	-22.2	0.0	-1.2	0.0	0.0	15.7
481	17639784.51	4870604.36	3.66	0	D	A	36.8	-21.5	0.0	-1.2	0.0	0.0	16.4
482	17639795.41	4870545.70	3.66	0	D	A	36.8	-18.5	0.0	-0.8	0.0	0.0	19.0
482	17639795.41	4870545.70	3.66	0	N	A	27.9	-18.5	0.0	-0.8	0.0	0.0	10.1
483	17639803.58	4870501.72	3.66	0	D	A	36.8	-18.6	0.0	-1.4	0.0	0.0	19.6
483	17639803.58	4870501.72	3.66	0	N	A	27.9	-18.6	0.0	-1.4	0.0	0.0	10.7
484	17639809.03	4870472.39	3.66	0	D	A	36.8	-15.8	0.0	-0.9	0.0	0.0	21.9
484	17639809.03	4870472.39	3.66	0	N	A	27.9	-15.8	0.0	-0.9	0.0	0.0	12.9
485	17639813.12	4870450.40	3.66	0	D	A	36.8	-16.4	0.0	-2.5	0.0	0.0	22.8
485	17639813.12	4870450.40	3.66	0	N	A	27.9	-16.4	0.0	-2.5	0.0	0.0	13.9
486	17639815.84	4870435.74	3.66	0	D	A	36.8	-14.6	0.0	-2.9	0.0	0.0	25.1
486	17639815.84	4870435.74	3.66	0	N	A	27.9	-14.6	0.0	-2.9	0.0	0.0	16.1
487	17639818.56	4870421.07	3.66	0	D	A	36.8	-13.0	0.0	-3.0	0.0	0.0	26.8
487	17639818.56	4870421.07	3.66	0	N	A	27.9	-13.0	0.0	-3.0	0.0	0.0	17.9
488	17639821.29	4870406.41	3.66	0	D	A	36.8	-12.2	0.0	-2.6	0.0	0.0	27.1
488	17639821.29	4870406.41	3.66	0	N	A	27.9	-12.2	0.0	-2.6	0.0	0.0	18.2
498	17639841.79	4870296.10	3.66	0	D	A	36.8	-18.2	0.0	-0.6	0.0	0.0	19.1
498	17639841.79	4870296.10	3.66	0	N	A	27.9	-18.2	0.0	-0.6	0.0	0.0	10.2
499	17639849.36	4870255.31	3.66	0	D	A	36.8	-20.8	0.0	-1.1	0.0	0.0	17.1

Road, TNM, Name: "Elm Road", ID: ""													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
211	17639650.39	4870318.66	0.10	0	D	A	43.9	-26.1	0.0	5.5	0.0	0.0	12.3
269	17639723.80	4870341.76	0.10	0	D	A	43.9	-16.5	0.0	10.6	0.0	0.0	16.8
286	17639745.16	4870348.48	0.10	0	D	A	43.9	-18.9	0.0	13.9	0.0	0.0	11.1
306	17639761.31	4870353.56	0.10	0	D	A	43.9	-17.9	0.0	15.0	0.0	0.0	11.0
313	17639772.48	4870357.07	0.10	0	D	A	43.9	-14.8	0.0	15.0	0.0	0.0	14.1
319	17639803.85	4870366.94	0.10	0	D	A	43.9	-16.6	0.0	-4.1	0.0	0.0	31.4
319	17639803.85	4870366.94	0.10	0	N	A	35.0	-16.6	0.0	-4.1	0.0	0.0	22.6
337	17639712.47	4870331.38	0.10	0	D	A	43.9	-17.2	0.0	8.4	0.0	0.0	18.3
341	17639737.64	4870339.30	0.10	0	D	A	43.9	-19.6	0.0	10.9	0.0	0.0	13.4
346	17639747.80	4870342.49	0.10	0	D	A	43.9	-21.3	0.0	11.4	0.0	0.0	11.3
349	17639756.66	4870345.28	0.10	0	D	A	43.9	-18.6	0.0	11.8	0.0	0.0	13.5
354	17639769.82	4870349.42	0.10	0	D	A	43.9	-15.5	0.0	11.8	0.0	0.0	16.6
365	17639806.79	4870361.06	0.10	0	D	A	43.9	-17.3	0.0	-4.3	0.0	0.0	30.9
365	17639806.79	4870361.06	0.10	0	N	A	35.0	-17.3	0.0	-4.3	0.0	0.0	22.0
386	17639723.80	4870341.76	1.52	0	D	A	42.2	-16.5	0.0	12.4	0.0	0.0	13.3
413	17639803.85	4870366.94	1.52	0	D	A	42.2	-16.6	0.0	-3.5	0.0	0.0	29.1
413	17639803.85	4870366.94	1.52	0	N	A	33.3	-16.6	0.0	-3.5	0.0	0.0	20.2
429	17639712.47	4870331.38	1.52	0	D	A	42.2	-17.2	0.0	10.2	0.0	0.0	14.8
451	17639769.82	4870349.42	1.52	0	D	A	42.2	-15.5	0.0	14.8	0.0	0.0	11.9
457	17639806.79	4870361.06	1.52	0	D	A	42.2	-17.3	0.0	-3.1	0.0	0.0	28.0
457	17639806.79	4870361.06	1.52	0	N	A	33.3	-17.3	0.0	-3.1	0.0	0.0	19.1
536	17639803.85	4870366.94	3.66	0	D	A	27.0	-16.6	0.0	-2.7	0.0	0.0	13.2
551	17639806.79	4870361.06	3.66	0	D	A	27.0	-17.3	0.0	-3.1	0.0	0.0	12.9

Receiver

Name: Building #2 - Unit #10 North Facade

ID:

X: 17639809.66 m

Y: 4870399.30 m

Z: 7.50 m

Road, TNM, Name: "Ninth Line", ID: ""

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	Ad (dB)	Aair (dB)	Agr (dB)	Afol (dB)	RL (dB)	Lr dB(A)
2	17639795.86	4870606.23	0.10	0	D	A	53.7	-21.6	0.0	-3.6	0.0	0.0	35.7
2	17639795.86	4870606.23	0.10	0	N	A	44.8	-21.6	0.0	-3.6	0.0	0.0	26.7
4	17639806.84	4870547.12	0.10	0	D	A	53.7	-18.6	0.0	-4.0	0.0	0.0	39.2
4	17639806.84	4870547.12	0.10	0	N	A	44.8	-18.6	0.0	-4.0	0.0	0.0	30.2
19	17639815.08	4870502.79	0.10	0	D	A	53.7	-18.6	0.0	-4.4	0.0	0.0	39.5
19	17639815.08	4870502.79	0.10	0	N	A	44.8	-18.6	0.0	-4.4	0.0	0.0	30.6
23	17639820.57	4870473.24	0.10	0	D	A	53.7	-15.7	0.0	-4.5	0.0	0.0	42.5
23	17639820.57	4870473.24	0.10	0	N	A	44.8	-15.7	0.0	-4.5	0.0	0.0	33.6
25	17639824.69	4870451.08	0.10	0	D	A	53.7	-15.9	0.0	-4.4	0.0	0.0	42.2
25	17639824.69	4870451.08	0.10	0	N	A	44.8	-15.9	0.0	-4.4	0.0	0.0	33.3
27	17639827.43	4870436.30	0.10	0	D	A	53.7	-13.6	0.0	-4.2	0.0	0.0	44.3
27	17639827.43	4870436.30	0.10	0	N	A	44.8	-13.6	0.0	-4.2	0.0	0.0	35.4
29	17639830.18	4870421.52	0.10	0	D	A	53.7	-11.0	0.0	-3.8	0.0	0.0	46.6
29	17639830.18	4870421.52	0.10	0	N	A	44.8	-11.0	0.0	-3.8	0.0	0.0	37.6
31	17639832.24	4870410.44	0.10	0	D	A	53.7	-12.4	0.0	-3.5	0.0	0.0	44.8
31	17639832.24	4870410.44	0.10	0	N	A	44.8	-12.4	0.0	-3.5	0.0	0.0	35.9
35	17639833.61	4870403.05	0.10	0	D	A	53.7	-12.1	0.0	-3.5	0.0	0.0	45.0
35	17639833.61	4870403.05	0.10	0	N	A	44.8	-12.1	0.0	-3.5	0.0	0.0	36.1
38	17639835.51	4870392.84	0.10	0	D	A	53.7	-10.5	0.0	26.9	0.0	0.0	16.3
41	17639837.93	4870379.80	0.10	0	D	A	53.7	-12.6	0.0	25.6	0.0	0.0	15.5
44	17639840.35	4870366.76	0.10	0	D	A	53.7	-14.9	0.0	23.6	0.0	0.0	15.2
50	17639842.77	4870353.73	0.10	0	D	A	53.7	-16.9	0.0	22.4	0.0	0.0	14.4
57	17639846.41	4870334.17	0.10	0	D	A	53.7	-16.3	0.0	21.4	0.0	0.0	16.0
61	17639851.25	4870308.09	0.10	0	D	A	53.7	-18.9	0.0	20.6	0.0	0.0	14.3
67	17639858.52	4870268.98	0.10	0	D	A	53.7	-18.6	0.0	21.2	0.0	0.0	13.8
71	17639868.21	4870216.83	0.10	0	D	A	53.7	-21.5	0.0	21.6	0.0	0.0	10.7
76	17639784.50	4870604.39	0.10	0	D	A	53.7	-21.6	0.0	-3.6	0.0	0.0	35.7
76	17639784.50	4870604.39	0.10	0	N	A	44.8	-21.6	0.0	-3.6	0.0	0.0	26.7
78	17639795.39	4870545.80	0.10	0	D	A	53.7	-18.6	0.0	-4.0	0.0	0.0	39.2
78	17639795.39	4870545.80	0.10	0	N	A	44.8	-18.6	0.0	-4.0	0.0	0.0	30.2
80	17639803.55	4870501.86	0.10	0	D	A	53.7	-18.5	0.0	-4.4	0.0	0.0	39.5
80	17639803.55	4870501.86	0.10	0	N	A	44.8	-18.5	0.0	-4.4	0.0	0.0	30.6
82	17639809.00	4870472.57	0.10	0	D	A	53.7	-15.5	0.0	-4.5	0.0	0.0	42.7
82	17639809.00	4870472.57	0.10	0	N	A	44.8	-15.5	0.0	-4.5	0.0	0.0	33.8
84	17639813.08	4870450.60	0.10	0	D	A	53.7	-15.5	0.0	-4.4	0.0	0.0	42.6
84	17639813.08	4870450.60	0.10	0	N	A	44.8	-15.5	0.0	-4.4	0.0	0.0	33.6
86	17639815.80	4870435.95	0.10	0	D	A	53.7	-12.7	0.0	-4.1	0.0	0.0	45.1
86	17639815.80	4870435.95	0.10	0	N	A	44.8	-12.7	0.0	-4.1	0.0	0.0	36.2
88	17639817.84	4870424.96	0.10	0	D	A	53.7	-13.0	0.0	-3.6	0.0	0.0	44.3
88	17639817.84	4870424.96	0.10	0	N	A	44.8	-13.0	0.0	-3.6	0.0	0.0	35.4
89	17639819.20	4870417.64	0.10	0	D	A	53.7	-10.7	0.0	-3.3	0.0	0.0	46.3
89	17639819.20	4870417.64	0.10	0	N	A	44.8	-10.7	0.0	-3.3	0.0	0.0	37.4
91	17639820.56	4870410.32	0.10	0	D	A	53.7	-8.2	0.0	-2.8	0.0	0.0	48.3
91	17639820.56	4870410.32	0.10	0	N	A	44.8	-8.2	0.0	-2.8	0.0	0.0	39.3
93	17639821.58	4870404.82	0.10	0	D	A	53.7	-9.8	0.0	-2.4	0.0	0.0	46.3
93	17639821.58	4870404.82	0.10	0	N	A	44.8	-9.8	0.0	-2.4	0.0	0.0	37.4
95	17639822.26	4870401.16	0.10	0	D	A	53.7	-9.6	0.0	-2.4	0.0	0.0	46.5
95	17639822.26	4870401.16	0.10	0	N	A	44.8	-9.6	0.0	-2.4	0.0	0.0	37.6
103	17639823.04	4870397.01	0.10	0	D	A	53.7	-9.1	0.0	31.2	0.0	0.0	13.5
111	17639823.90	4870392.36	0.10	0	D	A	53.7	-10.4	0.0	30.8	0.0	0.0	12.5
115	17639825.20	4870385.38	0.10	0	D	A	53.7	-9.7	0.0	29.4	0.0	0.0	14.6
119	17639826.92	4870376.08	0.10	0	D	A	53.7	-12.5	0.0	26.5	0.0	0.0	14.7

Road, TNM, Name: "Ninth Line", ID: ""													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
123	17639828.65	4870366.78	0.10	0	D	A	53.7	-14.8	0.0	24.4	0.0	0.0	14.5
130	17639831.24	4870352.83	0.10	0	D	A	53.7	-14.4	0.0	23.3	0.0	0.0	16.0
135	17639834.70	4870334.23	0.10	0	D	A	53.7	-17.2	0.0	23.0	0.0	0.0	13.6
140	17639839.89	4870306.33	0.10	0	D	A	53.7	-17.0	0.0	22.2	0.0	0.0	14.5
143	17639846.80	4870269.12	0.10	0	D	A	53.7	-19.9	0.0	21.9	0.0	0.0	11.9
147	17639856.00	4870219.59	0.10	0	D	A	53.7	-20.4	0.0	21.6	0.0	0.0	11.7
149	17639795.86	4870606.23	1.52	0	D	A	52.0	-21.6	0.0	-2.3	0.0	0.0	32.7
149	17639795.86	4870606.23	1.52	0	N	A	43.0	-21.6	0.0	-2.3	0.0	0.0	23.7
152	17639806.84	4870547.12	1.52	0	D	A	52.0	-18.6	0.0	-1.4	0.0	0.0	34.8
152	17639806.84	4870547.12	1.52	0	N	A	43.0	-18.6	0.0	-1.4	0.0	0.0	25.9
156	17639815.08	4870502.79	1.52	0	D	A	52.0	-18.6	0.0	-0.3	0.0	0.0	33.6
156	17639815.08	4870502.79	1.52	0	N	A	43.0	-18.6	0.0	-0.3	0.0	0.0	24.7
160	17639820.57	4870473.24	1.52	0	D	A	52.0	-15.7	0.0	-0.3	0.0	0.0	36.6
160	17639820.57	4870473.24	1.52	0	N	A	43.0	-15.7	0.0	-0.3	0.0	0.0	27.7
162	17639824.69	4870451.08	1.52	0	D	A	52.0	-15.9	0.0	-2.3	0.0	0.0	38.3
162	17639824.69	4870451.08	1.52	0	N	A	43.0	-15.9	0.0	-2.3	0.0	0.0	29.4
165	17639827.43	4870436.30	1.52	0	D	A	52.0	-13.6	0.0	-3.3	0.0	0.0	41.7
165	17639827.43	4870436.30	1.52	0	N	A	43.0	-13.6	0.0	-3.3	0.0	0.0	32.8
168	17639830.18	4870421.52	1.52	0	D	A	52.0	-11.0	0.0	-2.5	0.0	0.0	43.5
168	17639830.18	4870421.52	1.52	0	N	A	43.0	-11.0	0.0	-2.5	0.0	0.0	34.6
169	17639832.24	4870410.44	1.52	0	D	A	52.0	-12.4	0.0	-2.2	0.0	0.0	41.8
169	17639832.24	4870410.44	1.52	0	N	A	43.0	-12.4	0.0	-2.2	0.0	0.0	32.9
172	17639833.61	4870403.05	1.52	0	D	A	52.0	-12.1	0.0	-2.0	0.0	0.0	41.9
172	17639833.61	4870403.05	1.52	0	N	A	43.0	-12.1	0.0	-2.0	0.0	0.0	33.0
176	17639835.51	4870392.84	1.52	0	D	A	52.0	-10.5	0.0	28.2	0.0	0.0	13.3
179	17639837.93	4870379.80	1.52	0	D	A	52.0	-12.6	0.0	26.7	0.0	0.0	12.7
183	17639840.35	4870366.76	1.52	0	D	A	52.0	-14.9	0.0	24.8	0.0	0.0	12.3
185	17639842.77	4870353.73	1.52	0	D	A	52.0	-16.9	0.0	23.9	0.0	0.0	11.2
187	17639846.41	4870334.17	1.52	0	D	A	52.0	-16.3	0.0	23.0	0.0	0.0	12.7
189	17639851.25	4870308.09	1.52	0	D	A	52.0	-18.9	0.0	22.5	0.0	0.0	10.6
190	17639858.52	4870268.98	1.52	0	D	A	52.0	-18.6	0.0	22.6	0.0	0.0	10.7
192	17639784.50	4870604.39	1.52	0	D	A	52.0	-21.6	0.0	-2.3	0.0	0.0	32.7
192	17639784.50	4870604.39	1.52	0	N	A	43.0	-21.6	0.0	-2.3	0.0	0.0	23.7
193	17639795.39	4870545.80	1.52	0	D	A	52.0	-18.6	0.0	-1.4	0.0	0.0	34.8
193	17639795.39	4870545.80	1.52	0	N	A	43.0	-18.6	0.0	-1.4	0.0	0.0	25.8
194	17639803.55	4870501.86	1.52	0	D	A	52.0	-18.5	0.0	-0.2	0.0	0.0	33.6
194	17639803.55	4870501.86	1.52	0	N	A	43.0	-18.5	0.0	-0.2	0.0	0.0	24.7
196	17639809.00	4870472.57	1.52	0	D	A	52.0	-15.5	0.0	-0.4	0.0	0.0	36.9
196	17639809.00	4870472.57	1.52	0	N	A	43.0	-15.5	0.0	-0.4	0.0	0.0	27.9
198	17639813.08	4870450.60	1.52	0	D	A	52.0	-15.5	0.0	-2.5	0.0	0.0	38.9
198	17639813.08	4870450.60	1.52	0	N	A	43.0	-15.5	0.0	-2.5	0.0	0.0	30.0
200	17639815.80	4870435.95	1.52	0	D	A	52.0	-12.7	0.0	-3.5	0.0	0.0	42.8
200	17639815.80	4870435.95	1.52	0	N	A	43.0	-12.7	0.0	-3.5	0.0	0.0	33.9
201	17639817.84	4870424.96	1.52	0	D	A	52.0	-13.0	0.0	-2.1	0.0	0.0	41.1
201	17639817.84	4870424.96	1.52	0	N	A	43.0	-13.0	0.0	-2.1	0.0	0.0	32.2
202	17639819.20	4870417.64	1.52	0	D	A	52.0	-10.7	0.0	-3.6	0.0	0.0	44.9
202	17639819.20	4870417.64	1.52	0	N	A	43.0	-10.7	0.0	-3.6	0.0	0.0	36.0
203	17639820.56	4870410.32	1.52	0	D	A	52.0	-8.2	0.0	-2.7	0.0	0.0	46.5
203	17639820.56	4870410.32	1.52	0	N	A	43.0	-8.2	0.0	-2.7	0.0	0.0	37.6
204	17639821.58	4870404.82	1.52	0	D	A	52.0	-9.8	0.0	-2.1	0.0	0.0	44.3
204	17639821.58	4870404.82	1.52	0	N	A	43.0	-9.8	0.0	-2.1	0.0	0.0	35.4
205	17639822.26	4870401.16	1.52	0	D	A	52.0	-9.6	0.0	-2.4	0.0	0.0	44.8
205	17639822.26	4870401.16	1.52	0	N	A	43.0	-9.6	0.0	-2.4	0.0	0.0	35.9
213	17639825.20	4870385.38	1.52	0	D	A	52.0	-9.7	0.0	31.3	0.0	0.0	11.0
215	17639826.92	4870376.08	1.52	0	D	A	52.0	-12.5	0.0	27.8	0.0	0.0	11.7
221	17639828.65	4870366.78	1.52	0	D	A	52.0	-14.8	0.0	26.1	0.0	0.0	11.0
225	17639831.24	4870352.83	1.52	0	D	A	52.0	-14.4	0.0	24.3	0.0	0.0	13.2
230	17639834.70	4870334.23	1.52	0	D	A	52.0	-17.2	0.0	24.5	0.0	0.0	10.3
234	17639839.89	4870306.33	1.52	0	D	A	52.0	-17.0	0.0	24.1	0.0	0.0	10.8
243	17639795.86	4870606.23	3.66	0	D	A	36.8	-21.6	0.0	-1.2	0.0	0.0	16.4
245	17639806.84	4870547.12	3.66	0	D	A	36.8	-18.6	0.0	-0.8	0.0	0.0	19.0
245	17639806.84	4870547.12	3.66	0	N	A	27.9	-18.6	0.0	-0.8	0.0	0.0	10.1
246	17639815.08	4870502.79	3.66	0	D	A	36.8	-18.6	0.0	-1.4	0.0	0.0	19.6

Road, TNM, Name: "Ninth Line", ID: ""													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	dB	dB	dB	dB(A)
246	17639815.08	4870502.79	3.66	0	N	A	27.9	-18.6	0.0	-1.4	0.0	0.0	10.6
247	17639820.57	4870473.24	3.66	0	D	A	36.8	-15.7	0.0	-0.9	0.0	0.0	22.0
247	17639820.57	4870473.24	3.66	0	N	A	27.9	-15.7	0.0	-0.9	0.0	0.0	13.1
249	17639824.69	4870451.08	3.66	0	D	A	36.8	-15.9	0.0	-2.5	0.0	0.0	23.4
249	17639824.69	4870451.08	3.66	0	N	A	27.9	-15.9	0.0	-2.5	0.0	0.0	14.5
250	17639827.43	4870436.30	3.66	0	D	A	36.8	-13.6	0.0	-3.7	0.0	0.0	26.9
250	17639827.43	4870436.30	3.66	0	N	A	27.9	-13.6	0.0	-3.7	0.0	0.0	18.0
251	17639830.18	4870421.52	3.66	0	D	A	36.8	-11.0	0.0	-2.5	0.0	0.0	28.3
251	17639830.18	4870421.52	3.66	0	N	A	27.9	-11.0	0.0	-2.5	0.0	0.0	19.4
253	17639832.24	4870410.44	3.66	0	D	A	36.8	-12.4	0.0	-3.0	0.0	0.0	27.4
253	17639832.24	4870410.44	3.66	0	N	A	27.9	-12.4	0.0	-3.0	0.0	0.0	18.5
255	17639833.61	4870403.05	3.66	0	D	A	36.8	-12.1	0.0	-2.5	0.0	0.0	27.1
255	17639833.61	4870403.05	3.66	0	N	A	27.9	-12.1	0.0	-2.5	0.0	0.0	18.2
283	17639784.50	4870604.39	3.66	0	D	A	36.8	-21.6	0.0	-1.2	0.0	0.0	16.4
284	17639795.39	4870545.80	3.66	0	D	A	36.8	-18.6	0.0	-0.8	0.0	0.0	19.0
284	17639795.39	4870545.80	3.66	0	N	A	27.9	-18.6	0.0	-0.8	0.0	0.0	10.1
285	17639803.55	4870501.86	3.66	0	D	A	36.8	-18.5	0.0	-1.4	0.0	0.0	19.6
285	17639803.55	4870501.86	3.66	0	N	A	27.9	-18.5	0.0	-1.4	0.0	0.0	10.7
287	17639809.00	4870472.57	3.66	0	D	A	36.8	-15.5	0.0	-1.3	0.0	0.0	22.5
287	17639809.00	4870472.57	3.66	0	N	A	27.9	-15.5	0.0	-1.3	0.0	0.0	13.6
288	17639813.08	4870450.60	3.66	0	D	A	36.8	-15.5	0.0	-3.0	0.0	0.0	24.2
288	17639813.08	4870450.60	3.66	0	N	A	27.9	-15.5	0.0	-3.0	0.0	0.0	15.3
289	17639815.80	4870435.95	3.66	0	D	A	36.8	-12.7	0.0	-2.8	0.0	0.0	26.9
289	17639815.80	4870435.95	3.66	0	N	A	27.9	-12.7	0.0	-2.8	0.0	0.0	18.0
290	17639817.84	4870424.96	3.66	0	D	A	36.8	-13.0	0.0	-1.5	0.0	0.0	25.3
290	17639817.84	4870424.96	3.66	0	N	A	27.9	-13.0	0.0	-1.5	0.0	0.0	16.4
291	17639819.20	4870417.64	3.66	0	D	A	36.8	-10.7	0.0	-1.7	0.0	0.0	27.8
291	17639819.20	4870417.64	3.66	0	N	A	27.9	-10.7	0.0	-1.7	0.0	0.0	18.9
292	17639820.56	4870410.32	3.66	0	D	A	36.8	-8.2	0.0	-0.9	0.0	0.0	29.4
292	17639820.56	4870410.32	3.66	0	N	A	27.9	-8.2	0.0	-0.9	0.0	0.0	20.5
293	17639821.58	4870404.82	3.66	0	D	A	36.8	-9.8	0.0	-0.2	0.0	0.0	27.2
293	17639821.58	4870404.82	3.66	0	N	A	27.9	-9.8	0.0	-0.2	0.0	0.0	18.2
294	17639822.26	4870401.16	3.66	0	D	A	36.8	-9.6	0.0	-0.6	0.0	0.0	27.8
294	17639822.26	4870401.16	3.66	0	N	A	27.9	-9.6	0.0	-0.6	0.0	0.0	18.8

Road, TNM, Name: "Elm Road", ID: ""													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	dB	dB	dB	dB(A)
316	17639698.54	4870333.81	0.10	0	D	A	43.9	-17.7	0.0	7.7	0.0	0.0	18.5
340	17639798.50	4870365.26	0.10	0	D	A	43.9	-18.5	0.0	13.0	0.0	0.0	12.5
348	17639675.22	4870319.66	0.10	0	D	A	43.9	-18.6	0.0	7.1	0.0	0.0	18.2
352	17639754.55	4870344.62	0.10	0	D	A	43.9	-15.6	0.0	18.0	0.0	0.0	10.4
353	17639780.74	4870352.86	0.10	0	D	A	43.9	-14.5	0.0	18.7	0.0	0.0	10.7
371	17639796.01	4870357.67	0.10	0	D	A	43.9	-19.4	0.0	10.4	0.0	0.0	14.2
384	17639698.54	4870333.81	1.52	0	D	A	42.2	-17.7	0.0	8.9	0.0	0.0	15.5
409	17639675.22	4870319.66	1.52	0	D	A	42.2	-18.6	0.0	8.9	0.0	0.0	14.7

Receiver

Name: Building #2 - Unit #10 East Facade

ID:

X: 17639813.36 m

Y: 4870396.50 m

Z: 7.50 m

Road, TNM, Name: "Ninth Line", ID: ""

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	Ad (dB)	Aair (dB)	Agr (dB)	Afol (dB)	RL (dB)	Lr dB(A)
6	17639795.04	4870610.64	0.10	0	D	A	53.7	-22.6	0.0	18.5	0.0	0.0	12.6
7	17639804.38	4870560.36	0.10	0	D	A	53.7	-20.3	0.0	16.7	0.0	0.0	16.7
9	17639813.05	4870513.69	0.10	0	D	A	53.7	-18.0	0.0	-4.3	0.0	0.0	40.0
9	17639813.05	4870513.69	0.10	0	N	A	44.8	-18.0	0.0	-4.3	0.0	0.0	31.1
11	17639819.05	4870481.40	0.10	0	D	A	53.7	-18.3	0.0	-4.5	0.0	0.0	39.9
11	17639819.05	4870481.40	0.10	0	N	A	44.8	-18.3	0.0	-4.5	0.0	0.0	31.0
12	17639823.05	4870459.87	0.10	0	D	A	53.7	-15.8	0.0	-4.5	0.0	0.0	42.4
12	17639823.05	4870459.87	0.10	0	N	A	44.8	-15.8	0.0	-4.5	0.0	0.0	33.5
13	17639827.05	4870438.34	0.10	0	D	A	53.7	-12.4	0.0	-4.3	0.0	0.0	45.5
13	17639827.05	4870438.34	0.10	0	N	A	44.8	-12.4	0.0	-4.3	0.0	0.0	36.6
14	17639830.05	4870422.19	0.10	0	D	A	53.7	-12.4	0.0	-3.8	0.0	0.0	45.1
14	17639830.05	4870422.19	0.10	0	N	A	44.8	-12.4	0.0	-3.8	0.0	0.0	36.2
15	17639832.05	4870411.43	0.10	0	D	A	53.7	-10.3	0.0	-3.4	0.0	0.0	46.8
15	17639832.05	4870411.43	0.10	0	N	A	44.8	-10.3	0.0	-3.4	0.0	0.0	37.9
16	17639834.05	4870400.66	0.10	0	D	A	53.7	-9.3	0.0	-3.3	0.0	0.0	47.7
16	17639834.05	4870400.66	0.10	0	N	A	44.8	-9.3	0.0	-3.3	0.0	0.0	38.7
18	17639836.05	4870389.90	0.10	0	D	A	53.7	-10.2	0.0	-3.4	0.0	0.0	46.9
18	17639836.05	4870389.90	0.10	0	N	A	44.8	-10.2	0.0	-3.4	0.0	0.0	38.0
22	17639838.05	4870379.13	0.10	0	D	A	53.7	-12.3	0.0	-3.8	0.0	0.0	45.2
22	17639838.05	4870379.13	0.10	0	N	A	44.8	-12.3	0.0	-3.8	0.0	0.0	36.3
24	17639840.05	4870368.37	0.10	0	D	A	53.7	-14.5	0.0	-4.1	0.0	0.0	43.4
24	17639840.05	4870368.37	0.10	0	N	A	44.8	-14.5	0.0	-4.1	0.0	0.0	34.4
26	17639843.05	4870352.22	0.10	0	D	A	53.7	-14.1	0.0	-4.4	0.0	0.0	44.0
26	17639843.05	4870352.22	0.10	0	N	A	44.8	-14.1	0.0	-4.4	0.0	0.0	35.1
28	17639847.05	4870330.69	0.10	0	D	A	53.7	-17.0	0.0	-4.5	0.0	0.0	41.2
28	17639847.05	4870330.69	0.10	0	N	A	44.8	-17.0	0.0	-4.5	0.0	0.0	32.3
30	17639853.06	4870298.40	0.10	0	D	A	53.7	-17.0	0.0	-4.4	0.0	0.0	41.0
30	17639853.06	4870298.40	0.10	0	N	A	44.8	-17.0	0.0	-4.4	0.0	0.0	32.1
32	17639861.06	4870255.34	0.10	0	D	A	53.7	-20.1	0.0	-4.0	0.0	0.0	37.6
32	17639861.06	4870255.34	0.10	0	N	A	44.8	-20.1	0.0	-4.0	0.0	0.0	28.7
34	17639869.06	4870212.28	0.10	0	D	A	53.7	-22.4	0.0	-3.7	0.0	0.0	35.0
34	17639869.06	4870212.28	0.10	0	N	A	44.8	-22.4	0.0	-3.7	0.0	0.0	26.1
37	17639787.14	4870590.17	0.10	0	D	A	53.7	-19.3	0.0	19.4	0.0	0.0	15.0
40	17639799.27	4870524.90	0.10	0	D	A	53.7	-18.8	0.0	19.2	0.0	0.0	15.7
43	17639805.34	4870492.27	0.10	0	D	A	53.7	-19.3	0.0	19.1	0.0	0.0	15.3
46	17639809.38	4870470.51	0.10	0	D	A	53.7	-17.0	0.0	18.2	0.0	0.0	18.5
48	17639812.97	4870451.17	0.10	0	D	A	53.7	-15.4	0.0	-4.5	0.0	0.0	42.7
48	17639812.97	4870451.17	0.10	0	N	A	44.8	-15.4	0.0	-4.5	0.0	0.0	33.8
52	17639816.12	4870434.23	0.10	0	D	A	53.7	-12.1	0.0	-4.1	0.0	0.0	45.7
52	17639816.12	4870434.23	0.10	0	N	A	44.8	-12.1	0.0	-4.1	0.0	0.0	36.8
54	17639818.48	4870421.53	0.10	0	D	A	53.7	-11.8	0.0	-3.5	0.0	0.0	45.4
54	17639818.48	4870421.53	0.10	0	N	A	44.8	-11.8	0.0	-3.5	0.0	0.0	36.5
56	17639820.05	4870413.06	0.10	0	D	A	53.7	-8.7	0.0	-3.1	0.0	0.0	48.1
56	17639820.05	4870413.06	0.10	0	N	A	44.8	-8.7	0.0	-3.1	0.0	0.0	39.2
59	17639821.23	4870406.71	0.10	0	D	A	53.7	-9.0	0.0	-2.4	0.0	0.0	47.1
59	17639821.23	4870406.71	0.10	0	N	A	44.8	-9.0	0.0	-2.4	0.0	0.0	38.2
63	17639822.02	4870402.47	0.10	0	D	A	53.7	-7.3	0.0	-2.3	0.0	0.0	48.7
63	17639822.02	4870402.47	0.10	0	N	A	44.8	-7.3	0.0	-2.3	0.0	0.0	39.8
65	17639822.81	4870398.24	0.10	0	D	A	53.7	-6.5	0.0	-2.2	0.0	0.0	49.4
65	17639822.81	4870398.24	0.10	0	N	A	44.8	-6.5	0.0	-2.2	0.0	0.0	40.4
66	17639823.59	4870394.01	0.10	0	D	A	53.7	-7.3	0.0	-2.3	0.0	0.0	48.7
66	17639823.59	4870394.01	0.10	0	N	A	44.8	-7.3	0.0	-2.3	0.0	0.0	39.8

Road, TNM, Name: "Ninth Line", ID: ""													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
69	17639824.38	4870389.77	0.10	0	D	A	53.7	-9.0	0.0	-2.4	0.0	0.0	47.1
69	17639824.38	4870389.77	0.10	0	N	A	44.8	-9.0	0.0	-2.4	0.0	0.0	38.2
70	17639825.17	4870385.54	0.10	0	D	A	53.7	-10.9	0.0	-2.8	0.0	0.0	45.6
70	17639825.17	4870385.54	0.10	0	N	A	44.8	-10.9	0.0	-2.8	0.0	0.0	36.7
72	17639826.35	4870379.19	0.10	0	D	A	53.7	-10.4	0.0	-3.3	0.0	0.0	46.6
72	17639826.35	4870379.19	0.10	0	N	A	44.8	-10.4	0.0	-3.3	0.0	0.0	37.7
74	17639828.71	4870366.48	0.10	0	D	A	53.7	-11.1	0.0	-4.0	0.0	0.0	46.6
74	17639828.71	4870366.48	0.10	0	N	A	44.8	-11.1	0.0	-4.0	0.0	0.0	37.7
75	17639831.85	4870349.55	0.10	0	D	A	53.7	-14.7	0.0	-4.4	0.0	0.0	43.4
75	17639831.85	4870349.55	0.10	0	N	A	44.8	-14.7	0.0	-4.4	0.0	0.0	34.5
77	17639835.00	4870332.61	0.10	0	D	A	53.7	-17.3	0.0	-4.5	0.0	0.0	40.9
77	17639835.00	4870332.61	0.10	0	N	A	44.8	-17.3	0.0	-4.5	0.0	0.0	32.0
81	17639839.72	4870307.21	0.10	0	D	A	53.7	-17.0	0.0	-4.4	0.0	0.0	41.1
81	17639839.72	4870307.21	0.10	0	N	A	44.8	-17.0	0.0	-4.4	0.0	0.0	32.2
83	17639846.02	4870273.34	0.10	0	D	A	53.7	-19.8	0.0	-4.2	0.0	0.0	38.1
83	17639846.02	4870273.34	0.10	0	N	A	44.8	-19.8	0.0	-4.2	0.0	0.0	29.2
85	17639855.46	4870222.53	0.10	0	D	A	53.7	-19.7	0.0	-3.8	0.0	0.0	37.8
85	17639855.46	4870222.53	0.10	0	N	A	44.8	-19.7	0.0	-3.8	0.0	0.0	28.9
90	17639795.04	4870610.64	1.52	0	D	A	52.0	-22.6	0.0	18.7	0.0	0.0	10.6
94	17639804.38	4870560.36	1.52	0	D	A	52.0	-20.3	0.0	17.6	0.0	0.0	14.1
96	17639813.05	4870513.69	1.52	0	D	A	52.0	-18.0	0.0	-0.6	0.0	0.0	34.6
96	17639813.05	4870513.69	1.52	0	N	A	43.0	-18.0	0.0	-0.6	0.0	0.0	25.7
98	17639819.05	4870481.40	1.52	0	D	A	52.0	-18.3	0.0	-0.0	0.0	0.0	33.7
98	17639819.05	4870481.40	1.52	0	N	A	43.0	-18.3	0.0	-0.0	0.0	0.0	24.8
100	17639823.05	4870459.87	1.52	0	D	A	52.0	-15.8	0.0	-1.2	0.0	0.0	37.4
100	17639823.05	4870459.87	1.52	0	N	A	43.0	-15.8	0.0	-1.2	0.0	0.0	28.5
102	17639827.05	4870438.34	1.52	0	D	A	52.0	-12.4	0.0	-3.1	0.0	0.0	42.6
102	17639827.05	4870438.34	1.52	0	N	A	43.0	-12.4	0.0	-3.1	0.0	0.0	33.7
104	17639830.05	4870422.19	1.52	0	D	A	52.0	-12.4	0.0	-2.7	0.0	0.0	42.2
104	17639830.05	4870422.19	1.52	0	N	A	43.0	-12.4	0.0	-2.7	0.0	0.0	33.3
105	17639832.05	4870411.43	1.52	0	D	A	52.0	-10.3	0.0	-2.0	0.0	0.0	43.6
105	17639832.05	4870411.43	1.52	0	N	A	43.0	-10.3	0.0	-2.0	0.0	0.0	34.7
107	17639834.05	4870400.66	1.52	0	D	A	52.0	-9.3	0.0	-3.3	0.0	0.0	46.0
107	17639834.05	4870400.66	1.52	0	N	A	43.0	-9.3	0.0	-3.3	0.0	0.0	37.0
108	17639836.05	4870389.90	1.52	0	D	A	52.0	-10.2	0.0	-1.9	0.0	0.0	43.7
108	17639836.05	4870389.90	1.52	0	N	A	43.0	-10.2	0.0	-1.9	0.0	0.0	34.7
110	17639838.05	4870379.13	1.52	0	D	A	52.0	-12.3	0.0	-2.5	0.0	0.0	42.2
110	17639838.05	4870379.13	1.52	0	N	A	43.0	-12.3	0.0	-2.5	0.0	0.0	33.2
117	17639840.05	4870368.37	1.52	0	D	A	52.0	-14.5	0.0	-3.4	0.0	0.0	40.9
117	17639840.05	4870368.37	1.52	0	N	A	43.0	-14.5	0.0	-3.4	0.0	0.0	32.0
121	17639843.05	4870352.22	1.52	0	D	A	52.0	-14.1	0.0	-2.4	0.0	0.0	40.2
121	17639843.05	4870352.22	1.52	0	N	A	43.0	-14.1	0.0	-2.4	0.0	0.0	31.3
122	17639847.05	4870330.69	1.52	0	D	A	52.0	-17.0	0.0	-0.4	0.0	0.0	35.3
122	17639847.05	4870330.69	1.52	0	N	A	43.0	-17.0	0.0	-0.4	0.0	0.0	26.4
126	17639853.06	4870298.40	1.52	0	D	A	52.0	-17.0	0.0	-0.3	0.0	0.0	35.2
126	17639853.06	4870298.40	1.52	0	N	A	43.0	-17.0	0.0	-0.3	0.0	0.0	26.3
129	17639861.06	4870255.34	1.52	0	D	A	52.0	-20.1	0.0	-1.4	0.0	0.0	33.3
129	17639861.06	4870255.34	1.52	0	N	A	43.0	-20.1	0.0	-1.4	0.0	0.0	24.4
131	17639869.06	4870212.28	1.52	0	D	A	52.0	-22.4	0.0	-2.1	0.0	0.0	31.7
131	17639869.06	4870212.28	1.52	0	N	A	43.0	-22.4	0.0	-2.1	0.0	0.0	22.8
133	17639787.14	4870590.17	1.52	0	D	A	52.0	-19.3	0.0	19.8	0.0	0.0	12.9
136	17639799.27	4870524.90	1.52	0	D	A	52.0	-18.8	0.0	20.6	0.0	0.0	12.6
141	17639805.34	4870492.27	1.52	0	D	A	52.0	-19.3	0.0	21.0	0.0	0.0	11.7
144	17639809.38	4870470.51	1.52	0	D	A	52.0	-17.0	0.0	20.4	0.0	0.0	14.6
146	17639812.97	4870451.17	1.52	0	D	A	52.0	-15.4	0.0	-2.3	0.0	0.0	38.8
146	17639812.97	4870451.17	1.52	0	N	A	43.0	-15.4	0.0	-2.3	0.0	0.0	29.9
151	17639816.12	4870434.23	1.52	0	D	A	52.0	-12.1	0.0	-3.4	0.0	0.0	43.3
151	17639816.12	4870434.23	1.52	0	N	A	43.0	-12.1	0.0	-3.4	0.0	0.0	34.4
154	17639818.48	4870421.53	1.52	0	D	A	52.0	-11.8	0.0	-2.3	0.0	0.0	42.4
154	17639818.48	4870421.53	1.52	0	N	A	43.0	-11.8	0.0	-2.3	0.0	0.0	33.5
157	17639820.05	4870413.06	1.52	0	D	A	52.0	-8.7	0.0	-2.6	0.0	0.0	45.9
157	17639820.05	4870413.06	1.52	0	N	A	43.0	-8.7	0.0	-2.6	0.0	0.0	36.9
159	17639821.23	4870406.71	1.52	0	D	A	52.0	-9.0	0.0	-2.3	0.0	0.0	45.3

Road, TNM, Name: "Ninth Line", ID: ""													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
159	17639821.23	4870406.71	1.52	0	N	A	43.0	-9.0	0.0	-2.3	0.0	0.0	36.4
161	17639822.02	4870402.47	1.52	0	D	A	52.0	-7.3	0.0	-2.8	0.0	0.0	47.5
161	17639822.02	4870402.47	1.52	0	N	A	43.0	-7.3	0.0	-2.8	0.0	0.0	38.6
164	17639822.81	4870398.24	1.52	0	D	A	52.0	-6.5	0.0	0.3	0.0	0.0	45.2
164	17639822.81	4870398.24	1.52	0	N	A	43.0	-6.5	0.0	0.3	0.0	0.0	36.2
166	17639823.59	4870394.01	1.52	0	D	A	52.0	-7.3	0.0	-2.8	0.0	0.0	47.5
166	17639823.59	4870394.01	1.52	0	N	A	43.0	-7.3	0.0	-2.8	0.0	0.0	38.6
170	17639824.38	4870389.77	1.52	0	D	A	52.0	-9.0	0.0	-2.3	0.0	0.0	45.3
170	17639824.38	4870389.77	1.52	0	N	A	43.0	-9.0	0.0	-2.3	0.0	0.0	36.4
173	17639825.17	4870385.54	1.52	0	D	A	52.0	-10.9	0.0	-2.6	0.0	0.0	43.6
173	17639825.17	4870385.54	1.52	0	N	A	43.0	-10.9	0.0	-2.6	0.0	0.0	34.7
175	17639826.35	4870379.19	1.52	0	D	A	52.0	-10.4	0.0	-2.9	0.0	0.0	44.5
175	17639826.35	4870379.19	1.52	0	N	A	43.0	-10.4	0.0	-2.9	0.0	0.0	35.6
178	17639827.92	4870370.72	1.52	0	D	A	52.0	-13.1	0.0	-2.3	0.0	0.0	41.1
178	17639827.92	4870370.72	1.52	0	N	A	43.0	-13.1	0.0	-2.3	0.0	0.0	32.2
180	17639829.49	4870362.25	1.52	0	D	A	52.0	-15.3	0.0	-3.4	0.0	0.0	40.1
180	17639829.49	4870362.25	1.52	0	N	A	43.0	-15.3	0.0	-3.4	0.0	0.0	31.2
197	17639831.85	4870349.55	1.52	0	D	A	52.0	-14.7	0.0	-2.6	0.0	0.0	39.8
197	17639831.85	4870349.55	1.52	0	N	A	43.0	-14.7	0.0	-2.6	0.0	0.0	30.9
199	17639835.00	4870332.61	1.52	0	D	A	52.0	-17.3	0.0	-0.9	0.0	0.0	35.6
199	17639835.00	4870332.61	1.52	0	N	A	43.0	-17.3	0.0	-0.9	0.0	0.0	26.7
207	17639839.72	4870307.21	1.52	0	D	A	52.0	-17.0	0.0	-0.1	0.0	0.0	35.0
207	17639839.72	4870307.21	1.52	0	N	A	43.0	-17.0	0.0	-0.1	0.0	0.0	26.1
208	17639846.02	4870273.34	1.52	0	D	A	52.0	-19.8	0.0	-0.9	0.0	0.0	33.1
208	17639846.02	4870273.34	1.52	0	N	A	43.0	-19.8	0.0	-0.9	0.0	0.0	24.1
209	17639855.46	4870222.53	1.52	0	D	A	52.0	-19.7	0.0	-1.9	0.0	0.0	34.3
209	17639855.46	4870222.53	1.52	0	N	A	43.0	-19.7	0.0	-1.9	0.0	0.0	25.3
216	17639813.05	4870513.69	3.66	0	D	A	36.8	-18.0	0.0	-0.6	0.0	0.0	19.4
216	17639813.05	4870513.69	3.66	0	N	A	27.9	-18.0	0.0	-0.6	0.0	0.0	10.5
217	17639819.05	4870481.40	3.66	0	D	A	36.8	-18.3	0.0	-1.2	0.0	0.0	19.7
217	17639819.05	4870481.40	3.66	0	N	A	27.9	-18.3	0.0	-1.2	0.0	0.0	10.8
219	17639823.05	4870459.87	3.66	0	D	A	36.8	-15.8	0.0	-2.6	0.0	0.0	23.6
219	17639823.05	4870459.87	3.66	0	N	A	27.9	-15.8	0.0	-2.6	0.0	0.0	14.7
220	17639827.05	4870438.34	3.66	0	D	A	36.8	-12.4	0.0	-3.3	0.0	0.0	27.7
220	17639827.05	4870438.34	3.66	0	N	A	27.9	-12.4	0.0	-3.3	0.0	0.0	18.8
222	17639830.05	4870422.19	3.66	0	D	A	36.8	-12.4	0.0	-3.0	0.0	0.0	27.3
222	17639830.05	4870422.19	3.66	0	N	A	27.9	-12.4	0.0	-3.0	0.0	0.0	18.4
223	17639832.05	4870411.43	3.66	0	D	A	36.8	-10.3	0.0	-2.6	0.0	0.0	29.0
223	17639832.05	4870411.43	3.66	0	N	A	27.9	-10.3	0.0	-2.6	0.0	0.0	20.1
224	17639833.55	4870403.35	3.66	0	D	A	36.8	-12.4	0.0	-2.2	0.0	0.0	26.6
224	17639833.55	4870403.35	3.66	0	N	A	27.9	-12.4	0.0	-2.2	0.0	0.0	17.7
226	17639834.55	4870397.97	3.66	0	D	A	36.8	-12.3	0.0	-2.4	0.0	0.0	26.9
226	17639834.55	4870397.97	3.66	0	N	A	27.9	-12.3	0.0	-2.4	0.0	0.0	17.9
227	17639836.05	4870389.90	3.66	0	D	A	36.8	-10.2	0.0	-2.9	0.0	0.0	29.4
227	17639836.05	4870389.90	3.66	0	N	A	27.9	-10.2	0.0	-2.9	0.0	0.0	20.5
228	17639838.05	4870379.13	3.66	0	D	A	36.8	-12.3	0.0	-2.4	0.0	0.0	26.8
228	17639838.05	4870379.13	3.66	0	N	A	27.9	-12.3	0.0	-2.4	0.0	0.0	17.9
231	17639840.05	4870368.37	3.66	0	D	A	36.8	-14.5	0.0	-3.8	0.0	0.0	26.1
231	17639840.05	4870368.37	3.66	0	N	A	27.9	-14.5	0.0	-3.8	0.0	0.0	17.2
232	17639843.05	4870352.22	3.66	0	D	A	36.8	-14.1	0.0	-2.7	0.0	0.0	25.3
232	17639843.05	4870352.22	3.66	0	N	A	27.9	-14.1	0.0	-2.7	0.0	0.0	16.4
233	17639847.05	4870330.69	3.66	0	D	A	36.8	-17.0	0.0	-1.1	0.0	0.0	20.8
233	17639847.05	4870330.69	3.66	0	N	A	27.9	-17.0	0.0	-1.1	0.0	0.0	11.9
235	17639853.06	4870298.40	3.66	0	D	A	36.8	-17.0	0.0	-1.2	0.0	0.0	21.0
235	17639853.06	4870298.40	3.66	0	N	A	27.9	-17.0	0.0	-1.2	0.0	0.0	12.0
236	17639861.06	4870255.34	3.66	0	D	A	36.8	-20.1	0.0	-0.8	0.0	0.0	17.5
237	17639869.06	4870212.28	3.66	0	D	A	36.8	-22.4	0.0	-1.1	0.0	0.0	15.5
254	17639812.97	4870451.17	3.66	0	D	A	36.8	-15.4	0.0	-2.4	0.0	0.0	23.8
254	17639812.97	4870451.17	3.66	0	N	A	27.9	-15.4	0.0	-2.4	0.0	0.0	14.9
256	17639816.12	4870434.23	3.66	0	D	A	36.8	-12.1	0.0	-3.1	0.0	0.0	27.7
256	17639816.12	4870434.23	3.66	0	N	A	27.9	-12.1	0.0	-3.1	0.0	0.0	18.8
257	17639818.48	4870421.53	3.66	0	D	A	36.8	-11.8	0.0	-1.8	0.0	0.0	26.7
257	17639818.48	4870421.53	3.66	0	N	A	27.9	-11.8	0.0	-1.8	0.0	0.0	17.8

Road, TNM, Name: "Ninth Line", ID: ""													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
258	17639820.05	4870413.06	3.66	0	D	A	36.8	-8.7	0.0	-2.6	0.0	0.0	30.7
258	17639820.05	4870413.06	3.66	0	N	A	27.9	-8.7	0.0	-2.6	0.0	0.0	21.8
260	17639821.23	4870406.71	3.66	0	D	A	36.8	-9.0	0.0	-1.1	0.0	0.0	28.9
260	17639821.23	4870406.71	3.66	0	N	A	27.9	-9.0	0.0	-1.1	0.0	0.0	20.0
261	17639822.02	4870402.47	3.66	0	D	A	36.8	-7.3	0.0	-3.3	0.0	0.0	32.8
261	17639822.02	4870402.47	3.66	0	N	A	27.9	-7.3	0.0	-3.3	0.0	0.0	23.9
262	17639822.81	4870398.24	3.66	0	D	A	36.8	-6.5	0.0	-2.6	0.0	0.0	32.8
262	17639822.81	4870398.24	3.66	0	N	A	27.9	-6.5	0.0	-2.6	0.0	0.0	23.9
264	17639823.59	4870394.01	3.66	0	D	A	36.8	-7.3	0.0	-3.2	0.0	0.0	32.7
264	17639823.59	4870394.01	3.66	0	N	A	27.9	-7.3	0.0	-3.2	0.0	0.0	23.8
265	17639824.38	4870389.77	3.66	0	D	A	36.8	-9.0	0.0	-1.0	0.0	0.0	28.8
265	17639824.38	4870389.77	3.66	0	N	A	27.9	-9.0	0.0	-1.0	0.0	0.0	19.9
266	17639825.17	4870385.54	3.66	0	D	A	36.8	-10.9	0.0	-2.4	0.0	0.0	28.3
266	17639825.17	4870385.54	3.66	0	N	A	27.9	-10.9	0.0	-2.4	0.0	0.0	19.4
268	17639826.35	4870379.19	3.66	0	D	A	36.8	-10.4	0.0	-1.1	0.0	0.0	27.5
268	17639826.35	4870379.19	3.66	0	N	A	27.9	-10.4	0.0	-1.1	0.0	0.0	18.6
270	17639827.92	4870370.72	3.66	0	D	A	36.8	-13.1	0.0	-1.7	0.0	0.0	25.4
270	17639827.92	4870370.72	3.66	0	N	A	27.9	-13.1	0.0	-1.7	0.0	0.0	16.4
271	17639829.49	4870362.25	3.66	0	D	A	36.8	-15.3	0.0	-3.1	0.0	0.0	24.5
271	17639829.49	4870362.25	3.66	0	N	A	27.9	-15.3	0.0	-3.1	0.0	0.0	15.6
273	17639831.85	4870349.55	3.66	0	D	A	36.8	-14.7	0.0	-3.1	0.0	0.0	25.2
273	17639831.85	4870349.55	3.66	0	N	A	27.9	-14.7	0.0	-3.1	0.0	0.0	16.3
274	17639835.00	4870332.61	3.66	0	D	A	36.8	-17.3	0.0	-1.8	0.0	0.0	21.3
274	17639835.00	4870332.61	3.66	0	N	A	27.9	-17.3	0.0	-1.8	0.0	0.0	12.4
275	17639839.72	4870307.21	3.66	0	D	A	36.8	-17.0	0.0	-0.8	0.0	0.0	20.6
275	17639839.72	4870307.21	3.66	0	N	A	27.9	-17.0	0.0	-0.8	0.0	0.0	11.6
277	17639846.02	4870273.34	3.66	0	D	A	36.8	-19.8	0.0	-1.3	0.0	0.0	18.3
278	17639855.46	4870222.53	3.66	0	D	A	36.8	-19.7	0.0	-1.1	0.0	0.0	18.3

Road, TNM, Name: "Elm Road", ID: ""													
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	Ad	Aair	Agr	Afol	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
295	17639674.40	4870326.21	0.10	0	D	A	43.9	-18.7	0.0	7.2	0.0	0.0	18.0
308	17639771.99	4870356.92	0.10	0	D	A	43.9	-18.1	0.0	12.8	0.0	0.0	13.0
328	17639816.98	4870371.08	0.10	0	D	A	43.9	-12.9	0.0	-3.5	0.0	0.0	34.6
328	17639816.98	4870371.08	0.10	0	N	A	35.0	-12.9	0.0	-3.5	0.0	0.0	25.7
329	17639823.68	4870373.18	0.10	0	D	A	43.9	-12.8	0.0	-3.5	0.0	0.0	34.6
329	17639823.68	4870373.18	0.10	0	N	A	35.0	-12.8	0.0	-3.5	0.0	0.0	25.7
334	17639671.40	4870318.45	0.10	0	D	A	43.9	-19.5	0.0	7.2	0.0	0.0	17.2
338	17639713.27	4870331.63	0.10	0	D	A	43.9	-20.0	0.0	7.9	0.0	0.0	16.1
345	17639761.37	4870346.77	0.10	0	D	A	43.9	-19.1	0.0	9.6	0.0	0.0	15.3
355	17639787.29	4870354.92	0.10	0	D	A	43.9	-21.0	0.0	10.8	0.0	0.0	12.1
360	17639821.34	4870365.63	0.10	0	D	A	43.9	-11.3	0.0	-3.9	0.0	0.0	36.6
360	17639821.34	4870365.63	0.10	0	N	A	35.0	-11.3	0.0	-3.9	0.0	0.0	27.7
369	17639674.40	4870326.21	1.52	0	D	A	42.2	-18.7	0.0	9.0	0.0	0.0	14.5
394	17639816.98	4870371.08	1.52	0	D	A	42.2	-12.9	0.0	-2.3	0.0	0.0	31.6
394	17639816.98	4870371.08	1.52	0	N	A	33.3	-12.9	0.0	-2.3	0.0	0.0	22.7
395	17639823.68	4870373.18	1.52	0	D	A	42.2	-12.8	0.0	-2.3	0.0	0.0	31.6
395	17639823.68	4870373.18	1.52	0	N	A	33.3	-12.8	0.0	-2.3	0.0	0.0	22.7
399	17639671.40	4870318.45	1.52	0	D	A	42.2	-19.5	0.0	9.0	0.0	0.0	13.7
403	17639713.27	4870331.63	1.52	0	D	A	42.2	-20.0	0.0	9.3	0.0	0.0	12.9
411	17639761.37	4870346.77	1.52	0	D	A	42.2	-19.1	0.0	11.4	0.0	0.0	11.8
432	17639821.34	4870365.63	1.52	0	D	A	42.2	-11.3	0.0	-3.2	0.0	0.0	34.1
432	17639821.34	4870365.63	1.52	0	N	A	33.3	-11.3	0.0	-3.2	0.0	0.0	25.2
474	17639816.98	4870371.08	3.66	0	D	A	27.0	-12.9	0.0	-1.1	0.0	0.0	15.2
476	17639823.68	4870373.18	3.66	0	D	A	27.0	-12.8	0.0	-2.0	0.0	0.0	16.1
529	17639821.34	4870365.63	3.66	0	D	A	27.0	-11.3	0.0	-2.9	0.0	0.0	18.6

APPENDIX C: WARNING CLAUSES

- TYPE A:** “Purchasers/tenants are advised that sound levels due to increasing road traffic and rail 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, Conservations and Parks.”
- TYPE B:** “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 and rail 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, Conservations and Parks.”
- TYPE C:** “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, Conservations and Parks.”
- TYPE D:** “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, Conservations and Parks.”
- TYPE E:** “Purchasers/tenants are advised that due to the proximity of the adjacent commercial buildings, noise from the commercial buildings may at times be audible.”

APPENDIX D: REFERENCES

1. Ministry of the Environment, "Model Municipal Noise Control By-Law, Final Report," August 1978.
2. Ontario Ministry of the Environment, Environmental Approvals and Land Use Planning Branch, "Guidelines for Road Traffic Noise Assessment," July 1986.
3. Ministry of the Environment's *STAMSON* Computer Programme (Version 5.03) for the IBM PC.
4. Ministry of the Environment, *ORNAMENT*, "Ontario Road Noise Analysis Method for Environment and Transportation," November 1988.
5. Quirt, D.J., "Controlling Sound Transmission into Buildings," National Research Council, Building Practice Note 56, Update 1.1.
6. Ministry of the Environment, *STEAM* "Sound from Trains Environmental Analysis Method," July 1990
7. Ministry of the Environment, "Environmental Noise Guideline: Stationary and Transportation Sources – Approval and Planning," Publication *NPC-300*, August 2013.